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ABSTRACT

This report presents national statistics on federal aid to graduate students in the sciences and engineering for fall, 1973. Data were provided by every institution with a doctoral program in science or engineering. The characteristics of graduate enrollment examined in this report are: enrollment status (full and part time); distribution among fields of science; level of study (first-year or beyond); citizenship (U.S. and foreign); control of institution (public or private); and sex of graduate students. Data on types and sources of major support were provided for full-time students only. Postdoctoral utilization by field of science was examined in terms of type and source of support and year of the Ph.D. Appendices include notes on general methodology, classification of institutions in the survey, detailed statistical tables, and a reliability and validity assessment of the 1973 survey. (MLH)

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SURVEYS OF SCIENCE RESOURCES SERIES
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FOREWORD

The issues and problems surrounding graduate education in the United States have been the subject of much public attention in recent years. Today, discussion centers around such aspects as supply and demand, utilization of graduates in areas of social need, productivity, and barriers to the entry of women and minorities. Evaluation of these issues has taken place at the same time that a number of social and economic forces have emerged that significantly affect graduate education. Student attitudes and demands changed as the labor market for highly educated persons tightened in several scientific disciplines. Declining rates of enrollment confronted universities as they faced financial distress caused by inflation.

Federal policy concerning the support of graduate students also shifted. Federal aid to students and programs for the general support of institutions has been reduced in light of changing national priorities for resources. Among Federal agency programs affected by the shifts in funding were student aid under the Office of Education's National Defense Education Act, the National Science Foundation's and the National Aeronautics and Space Administration's traineeship program.

The Survey of Graduate Science Student Support and Postdoctorals, the subject of this report, is the single source of national statistics on financial aid to graduate students in the sciences and engineering. This survey was launched in 1972 to continue to provide a national data base formerly supplied on forms submitted by institutions applying for suppo program. Through analysis of the data, a pictur changes in Federal policy on graduate enrollm socioeconomic factors.

Every institution with a doctorate program surveyed in both 1972 and 1973, and every insti The National Science Foundation is grateful to department chairmen for the success of this data the 1973 survey have appeared in three prior technical notes in appendix I, and have been ma for use in the planning of future resource allocati education.

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submitted by institutions applying for support under the NSF traineeship program. Through analysis of the data, a picture is obtained of the impacts of changes in Federal policy on graduate enrollment as they interact with other socioeconomic factors.

Every institution with a doctorate program in science or engineering was surveyed in both 1972 and 1973, and every institution responded in both years. The National Science Foundation is grateful to the graduate deans and their department chairmen for the success of this data-collection effort. The results of the 1973 survey have appeared in three prior publications, as listed in the technical notes in appendix I, and have been made available to each respondent for use in the planning of future resource allocations within institutions of higher education.

The report was prepared in the Division of Science Resources Studies, Charles E. Falk, Director.

H. Guyford Stever, Director
National Science Foundation

May 1975

general notes

The statistical coverage of graduate enrollment and postdoctorals in this report pertains to doctorate-granting institutions only, including their medical school components, and is limited to the sciences and engineering. The term "science" in this report is understood to include engineering. Where the term "graduate enrollment" is used, it is understood to refer to the total of all full- and part-time science students enrolled for advanced degrees; candidates for first-professional degrees, including the M.D. and D.D.S., were excluded.

Fall 1973 statistics were provided by 6,559 master's and doctorate-level departments within 339 institutions of higher education. Trend data for the period 1967-73 were derived by means of an indexing method which linked the 1972 and 1973 survey data to statistics provided for 1967-71 on NSF traineeship applications.

The term "matched" departments refers to the 4,112 departments that provided survey data in both 1972 and 1973.

Details shown in statistical tables may not add to totals because of rounding.

acknowledgments

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CONTENTS

[1] See note on p. 24.

[1] See note on p. 24.

HIGHLIGHTS

GRADUATE ENROLLMENT AND SOURCES OF SUPPORT

- In fall 1973 doctorate-granting institutions enrolled almost 218,000 full- and part-time graduate students in the sciences and engineering, representing a drop of 1 percent from the previous year and continuing the downward trend that began in 1970. Every area of science showed effects of this decrease except the life sciences and psychology, both of which went up 2 percent.

- Full-time enrollment which accounted for 164,300 students, went down almost 3 percent from 1972 to 1973, while part-time enrollment went up 4 percent. This shift to part-time graduate study indicates a growing dependence by students upon employment in order to complete their graduate education.

- Over a 7-year time span, full-time graduate enrollment showed an overall decline of 5 percent from its 1967 base, with the students dependent on Federal support declining by 40 percent during this period. While Federal assistance was on the decline, both institutional and self-support were on the increase.

- The number of students dependent
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POSTDOCTORAL UTILIZATION AND SUPP

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- The number of students dependent upon Federal fellowships and traineeships declined 22 percent between 1972 and 1973, while institutionally supported fellows-trainees went up by 15 percent. Research assistants dependent on Federal support also declined, but by only 2 percent. This decline was offset by increases in institutional and other support of 8 percent and 10 percent, respectively.
- The foreign graduate student population which amounted to 30,800 full-time students in 1973 continued the downward trend noted in previous years. Psychology was the only area of science to show an increase in foreign students between 1972 and 1973.

POSTDOCTORAL UTILIZATION AND SUPPORT

- Science and engineering graduate departments utilized 16,400 postdoctoral appointees in 1973, 89 percent of whom received some form of Federal support. When examined in terms of change since 1967, the number of postdoctorals rose 31 percent by 1972, but a 6-percent drop was reported between 1972-73. This change in direction may be influenced by lower unemployment rates for doctoral scientists and engineers in 1973, since postdoctoral appointments are considered to be temporary, short-term employment for recent Ph.D. graduates.

INTRODUCTION

Beginning in 1965 the Graduate Traineeship Program of the National Science Foundation required that institutions submit application forms containing detailed statistics on the types and sources of support for graduate science students, as well as selected information on faculty and postdoctorals. Since 1972, after the general program was phased out and traineeship applications for support across all fields of science were no longer accepted, the Division of Science Resources Studies initiated a survey program to preserve the time series, and coverage has been expanded to cover all graduate science departments.

When the National Institutes of Health became a partner in the survey in 1973, coverage was again expanded to include all graduate departments in the clinical and medical sciences, as listed in the 1973-74 Directory of American Medical Education of the Association of American Medical Colleges. Results of the 1973 survey represent responses from 6,559 master's and doctorate departments in 339 institutions awarding science doctorate degrees; including 104 separate medical schools. See technical notes (table I-14) for department titles that were aggregated into science and engineering disciplines.

The 100-percent institutional response rate attained in both 1972 and 1973 was indicative of the intense academic interest in recent national issues concerning graduate education, and particularly in the use of statistics to examine these issues by research specialists and analysts. A ranking of all the institutions in terms of their total graduate enrollment is shown in the technical notes (table I-15).

Forms were mailed in mid-November 1973 to all graduate deans, or to the respondent named on the 1972 return. Preliminary results based on responses from 3,374 graduate departments were published in a *Science Resources Studies Highlights* in July 1974; the final statistical tables were released in October 1974 and are available upon request.[1]

Characteristics of graduate enrollment examined in this report are as follows: Enrollment status (full- and part-time), distribution among fields of science, level of study (first-year or beyond-f foreign), control of institution (public or privat Data on types and sources of major support wer only. Postdoctoral utilization by field of scienc and source of support and year of Ph.D. Deta available on a 2-year basis for every item that ap both 1972 and 1973.[2]

The statistics presented in this report were collection efforts: (1) Applications by departm traineeships from 1967 through 1971, and (2) sta and 1973 by NSF to continue the series with br Because of the shifting size of the universe from a method was devised to link the two data bas analyses. The applications for traineeships ca departments and institutions each year, so th available to provide national science and Similarly, each of the surveys of 1972 and 1973 wa departments, this increase in coverage each yea national totals. Therefore, a method was devise departments that reported consistently for thre process enabled NSF to examine short-term tre for construction of an index, using 1967 as the

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[1] See National Science Foundation, *Science Resources Studies Highlights*, "1973 Graduate Science Enrollment Down Another 2 Percent" (NSF 74-308) July 30, 1974, and *Detailed Statistical Tables, Graduate Science Education: Student Support and Postdoctorals, Fall 1973* (NSF 74-318-A), (Washington, D.C. 20550, 1974).

[2] See appendix IV for examples of 1972 and 1973 Dep
[3] See technical notes, appendix I, for the number of covered in the trend data for 1967-73.

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science, level of study (first-year or beyond-first-year), citizenship (U S and foreign), control of institution (public or private), and sex of graduate students Data on types and sources of major support were provided for full-time students only Postdoctoral utilization by field of science was examined in terms of type and source of support and year of Ph D Detailed statistical breakdowns were available on a 2-year basis for every item that appeared on the questionnaire in both 1972 and 1973.[2]

The statistics presented in this report were derived from two separate data-collection efforts (1) Applications by department chairmen for NSF graduate traineeships from 1967 through 1971, and (2) statistical surveys conducted in 1972 and 1973 by NSF to continue the series with broader coverage of departments Because of the shifting size of the universe from which these data were extracted, a method was devised to link the two data bases to produce longer term trend analyses. The applications for traineeships came from a different number of departments and institutions each year, so that absolute numbers were not available to provide national science and engineering enrollment levels. Similarly, each of the surveys of 1972 and 1973 was sent to an expanded universe of departments, this increase in coverage each year also precluded the formation of national totals Therefore, a method was devised to examine the responses from departments that reported consistently for three or four years This matching process enabled NSF to examine short-term trends, which then became the basis for construction of an index, using 1967 as the base year.[3]

Greater detail is available for the most recent period, 1972 to 1973, as every comparable item on the questionnaire was tabulated on a matched basis; e.g., enrollment status (full- and part-time), level of study (first-year and beyond-first-year), citizenship (U S. citizens and foreign students), types and sources of support of full-time students, sex of full-time students, and the sources of support of postdoctorals All of these items have been tabulated by field and area of science

[2] See appendix IV for examples of 1972 and 1973 Departmental Data Sheets

[3] See technical notes, appendix I for the number of institutions and departments, by level, covered in the trend data for 1967-73

Section 1. TRENDS IN GRADUATE ENROLLMENT IN SCIENCE AND ENGI

GENERAL CHARACTERISTICS, 1972 to 1973

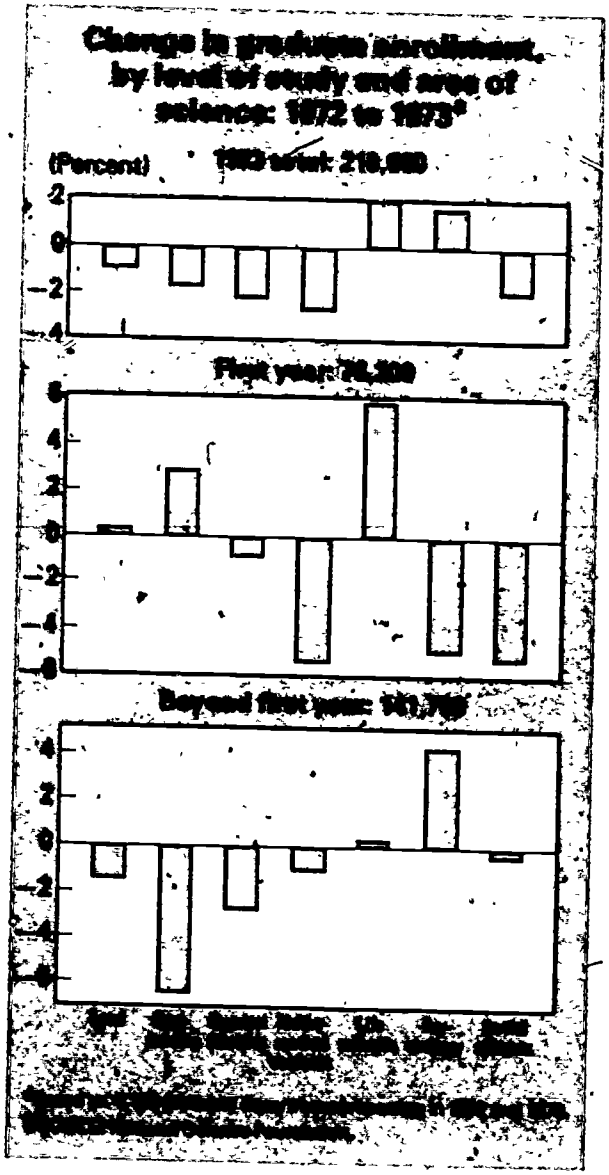
Institutions granting science Ph.D.'s reported that total graduate science enrollment declined 1 percent between 1972 and 1973, a trend that began in fall 1970. Gains in enrollment were registered in only two areas: the life sciences and psychology. This increase in interest in the life sciences, particularly in the biological sciences, was attributed by some survey respondents to its growing appeal among young adults as a means of satisfying their career aspirations. Also, many unsuccessful medical school applicants continued their education in a related field of graduate study to upgrade their academic credentials or to gain admission into an M.D. program in the future. Psychology, a professional field where advanced degrees are becoming more important and where public demand for counseling and guidance services is increasing, is attracting more undergraduate majors than ever before.[4]

[4] *The Chronicle of Higher Education*, "Will Success Spoil Psychology," September 30, 1974.

Percent change in graduate enrollment, by area of science and enrollment status: 1972 to 1973

Area of science	Total	Full time	Part time
Total, all areas	-1.0	-2.5	4.2
Engineering	-1.8	-3.3	.8
Physical sciences	-2.3	-3.5	6.2
Mathematical sciences	-2.7	-4.5	1.8
Life sciences	2.0	-.2	17.7
Psychology	1.7	-1.9	21.7
Social sciences	2.0	-2.7	-.1

NOTE: Based on 4,112 graduate departments reporting in 1972 and 1973.



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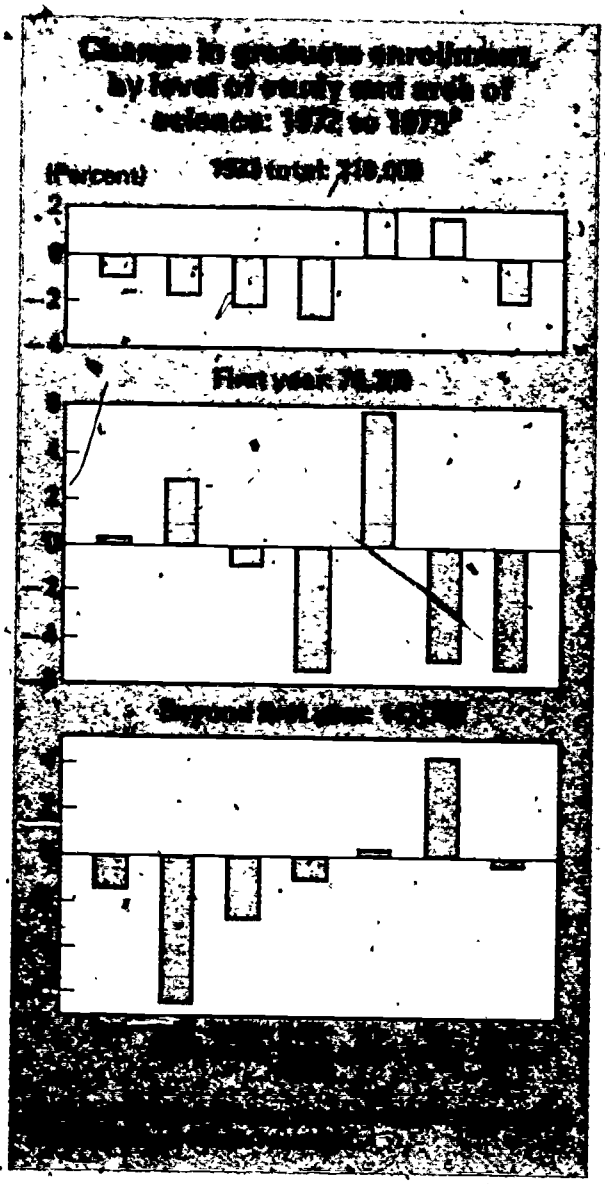

ENROLLMENT STATUS

Every area of science lost some full-time students between 1972 and 1973, at the same time that gains were being registered in virtually every area in part-time enrollment. Increases in part-time enrollment ranged from 1 percent in engineering to 22 percent in psychology with the social sciences the only area to register a slight loss.

LEVEL OF STUDY

Enrollment in the first year of graduate study was up slightly from 1972 to 1973, representing a reversal which may have been influenced by changing attitudes on the part of some students who were previously "turned off" by the prospect of professional careers in certain fields of science and technology. In certain locales, university administrators reported that economic factors could be playing a major role in this turnaround, i.e., a shrinking job market for bachelor's degree holders in science-oriented positions could be a large inducement for students to stay in graduate school and obtain a more marketable degree. For instance, first-year engineering enrollment went up 5 percent from 1972 to 1973 and first-year enrollment in the life sciences went up 6 percent. Enrollment of first year students in all other areas decreased at rates ranging from 1 percent in the physical sciences to almost 6 percent in the mathematical sciences.

FULL-TIME GRADUATE STUDENTS

LONG-TERM TRENDS

An overall decline of 5 percent in full-time enrollment in the sciences and engineering occurred during the period 1967-73. In 1973 federally supported students enrolled on a full-time basis represented only about 60 percent the level supported in 1967, while Federal academic science obligations to universities and colleges were 18 percent lower. Federal agencies provided the major source of support for only 27 percent of the 164,300 full time students enrolled in graduate science departments in 1973, compared with 42 percent in 1967. Support from the institutions themselves, including State and local government funds, provided the principal source for 42 percent of all full time graduate students in 1973, up considerably from the 34-percent share provided in 1967.

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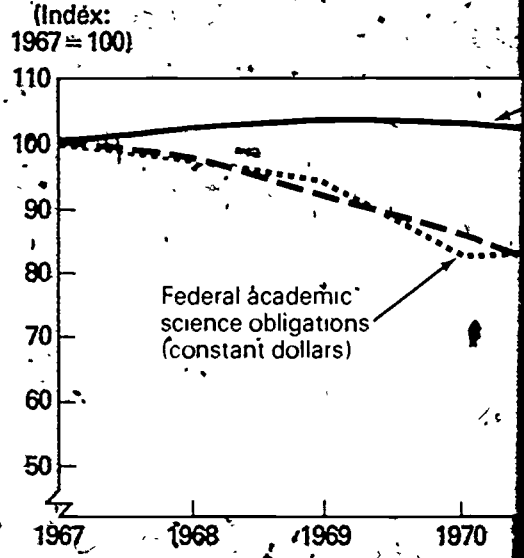

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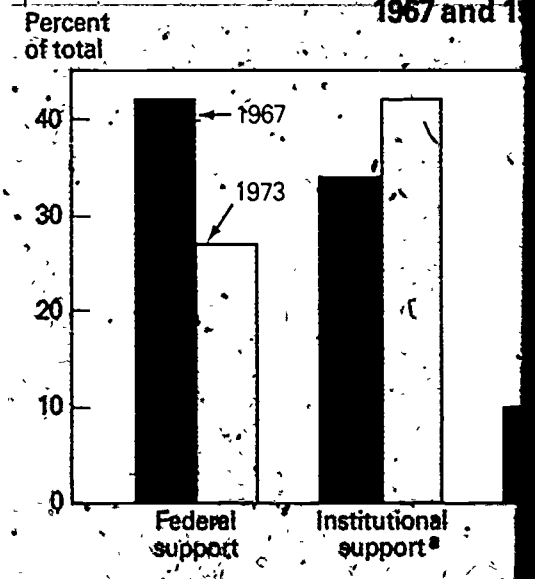
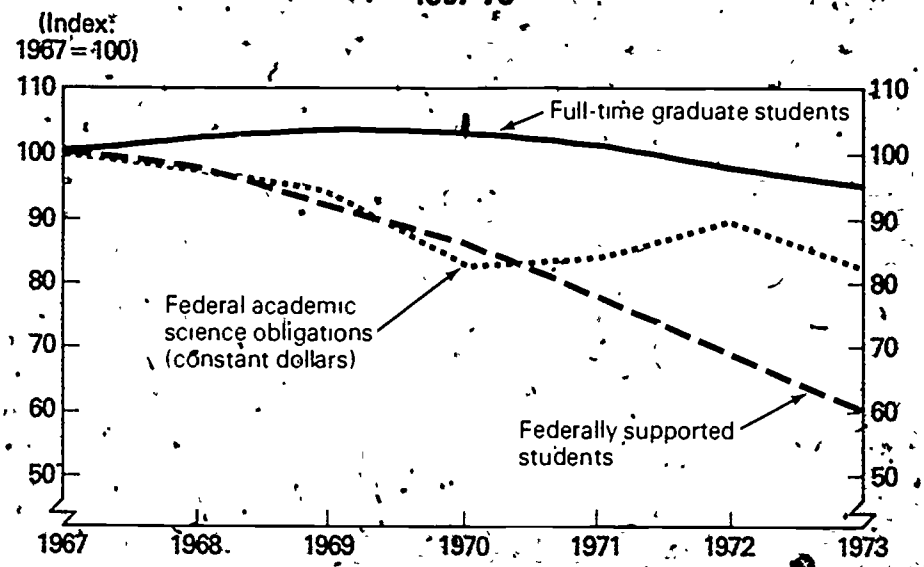
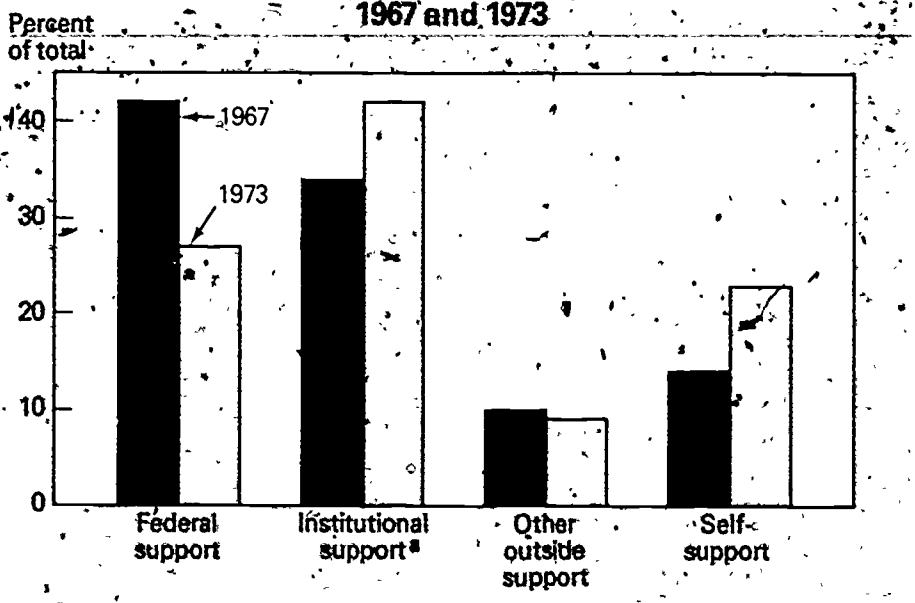


*Includes support from State and local governments.
SOURCE: National Science Foundation

Federally supported graduate science and engineering students and Federal academic science obligations: 1967-73



Distribution of full-time graduate science and engineering students, by source of major support: 1967 and 1973



[a]Includes support from State and local governments.
SOURCE: National Science Foundation

STUDENTS

-TERM TRENDS

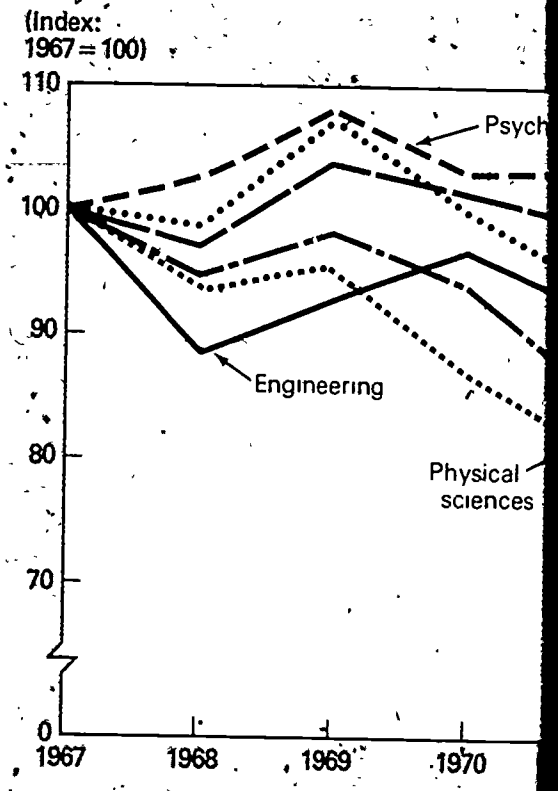
t in full-time enrollment in the sciences and period 1967-73. In 1973 federally supported s represented only about 60 percent the level demic science obligations to universities and deral agencies provided the major source of 4,300 full-time students enrolled in graduate red with 42 percent in 1967. Support from the tate and local government funds provided of all full-time graduate students in 1973, up hare provided in 1967.

Trends in the number of first-year entrants into major areas of science over the 1967-73 period are shown in the chart. While recognizing that a significant number of these first-year students will receive terminal master's degrees either by design or as the result of economic factors at the time of decision, these data are considered by many to be the best indicator of the future supply of Ph.D.'s. Data on 1973 doctorate-degree recipients from the Survey of Earned Doctorates that is conducted annually by the Commission on Human Resources of the National Research Council indicate that the median time lapse from year of baccalaureate to year of doctorate in all science fields was 7.3 years.[5] During this time span, students frequently change their career aspirations and drop out of graduate school, so that first-year enrollment as a measure of future Ph.D. output must be utilized with caution.

As shown graphically, no area of science enrolled a higher level of first-year students in 1973 than in 1967. First-year enrollment was on the increase from 1967 to 1969 in only three areas of science: psychology, life, and the social sciences. By 1973 psychology and life science majors were 3 percent below their 1967 level; first-year entrants into the social sciences were 20 percent below. Life science and engineering entrants appear to be reversing this trend; these were the only areas to show an upward swing between 1972 and 1973.

[5] See National Academy of Sciences, *Summary Report 1973 Doctorate Recipients from United States Universities* (Washington, D.C., May 1974), table 2

Change in first-year full-time en science: 1967-



SOURCE: National Science Foundation

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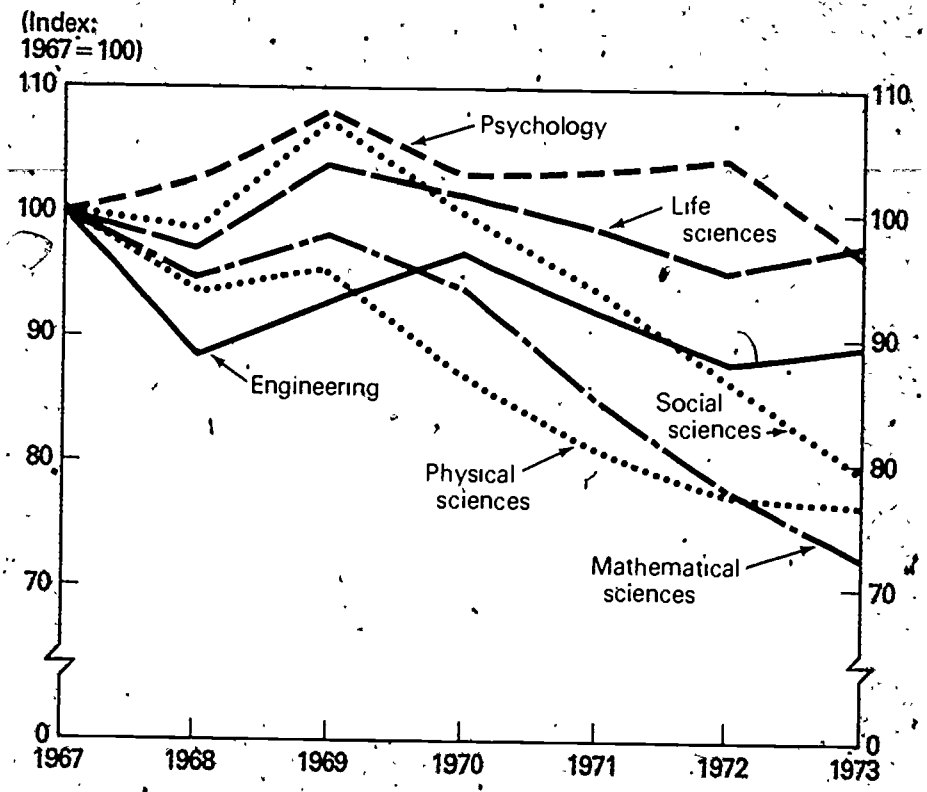


SOURCE: National Science Foundation

SHORT-TERM TRENDS

Every item on the 1973 questionnaire was compared with its 1972 counterpart for departments that reported in both surveys.[6] In this set of matched departments, both sources and types of major support were analyzed according to fields of science, type of control of the institution, level of study, and citizenship.

Source of Major Support

The shift in funding patterns described earlier was apparent in both the long- and short-term periods analyzed. While Federal support to students dropped by 13 percent from 1972 to 1973, the institutions themselves, as well as State and local governments, increased their support by almost 6 percent in every area of science. Other outside support—from industrial, private, and foreign sources—rose over 2 percent. For the first time in several years, however, the number of self-supported students declined. Both public and private institutions were affected by the slackening of Federal support, with the former losing slightly more in percentage terms than the latter. Therefore, compared to public institutions, private institutions were evidently in a better short-term financial position to increase their contribution to student support from endowment and other non-Federal sources. In addition, enrollment of self-supported students dropped more than twice as fast in public as in private universities.

[6] See appendix IV for examples of both forms

Percent change in full-time graduate enrollment in matched departments, by source of major support and area of science: 1972 to 1973

Source of major support	Total	Engineering	Physical sciences	Mathematical sciences	Life sciences	Psychology	Social sciences
Total	-2.5	-3.3	-3.5	-4.5	-.2	-1.9	-2.7
U.S. Government	-13.2	-8.8	-12.5	-19.4	-15.0	-15.4	-15.3
Institutional support	5.6	5.7	3.5	2.3	8.8	7.9	5.7
Other outside support	2.4	7.9	-6.3	13.1	7.9	4.4	-8.0
Self-support	-4.5	-10.2	-4.9	-14.0	4.7	-.2	-4.5

NOTE Based on 4,112 graduate departments reporting in 1972 and 1973

The ability of institutions, especially p increase student aid from their own assets appears to be limited. The value of endow contributions are influenced significantly by r have been declining. Since the institutions financial conditions due to declining rates o inflation, there are indications that tuition fo increase significantly in the near future.

Percent change in full-t enrollment in matched depa of major support and cont 1972 to 197

Source of major support	Total
Total	-2.5
U.S. Government	-13.2
Institutional support	5.6
Other outside support	2.4
Self-support	-4.5

NOTE Based on 4,112 graduate dep and 1973

ERM TRENDS

ire was compared with its 1972 counterpart both surveys.[6] In this set of matched of major support were analyzed according of the institution, level of study, and

bed earlier was apparent in both the long- e Federal support to students dropped by rtions themselves, as well as State and local t by almost 6 percent in every area of industrial, private, and foreign sources— in several years, however, the number of th public and private institutions were support, with the former losing slightly latter. Therefore, compared to public evidently in a better short-term financial to student support from endowment and n, enrollment of self-supported students ublic as in private universities.

The ability of institutions, especially private universities, to continue to increase student aid from their own assets without large increases in tuition appears to be limited. The value of endowments and the amount of private contributions are influenced significantly by market conditions, which, of course, have been declining. Since the institutions also are confronted with adverse financial conditions due to declining rates of enrollment and rising costs due to inflation, there are indications that tuition for admission to graduate school may increase significantly in the near future.

e enrollment in matched departments, nd area of science: 1972 to 1973

hysical iences	Mathe-matical sciences	Life sciences	Psy-chology	Social sciences
-3.5	-4.5	-.2	-1.9	-2.7
-12.5	-19.4	-15.0	-15 4	-15.3
3.5	2.3	8.8	7.9	5.7
-6.3	13 1	7.9	4.4	-8.0
-4.9	-14 0	4.7	-.2	-4.5

eporting in 1972 and 1973.

Percent change in full-time graduate enrollment in matched departments, by source of major support and control of institution: 1972 to 1973

Source of major support	Total	Control of institution	
		Public	Private
Total	-2.5	-2.7	-1.8
U.S. Government	-13.2	-13.5	-12.5
Institutional support	5.6	4.4	9.9
Other outside support	2.4	4.8	-2.0
Self-support	-4.5	-5.3	-2.0

NOTE: Based on 4,112 graduate departments reporting in 1972 and 1973

Type of Major Support

Four mechanisms of support were itemized on the questionnaire: fellowships-traineeships, research assistantships, teaching assistantships, and "other" types. For definitions of each mechanism, refer to the technical notes.

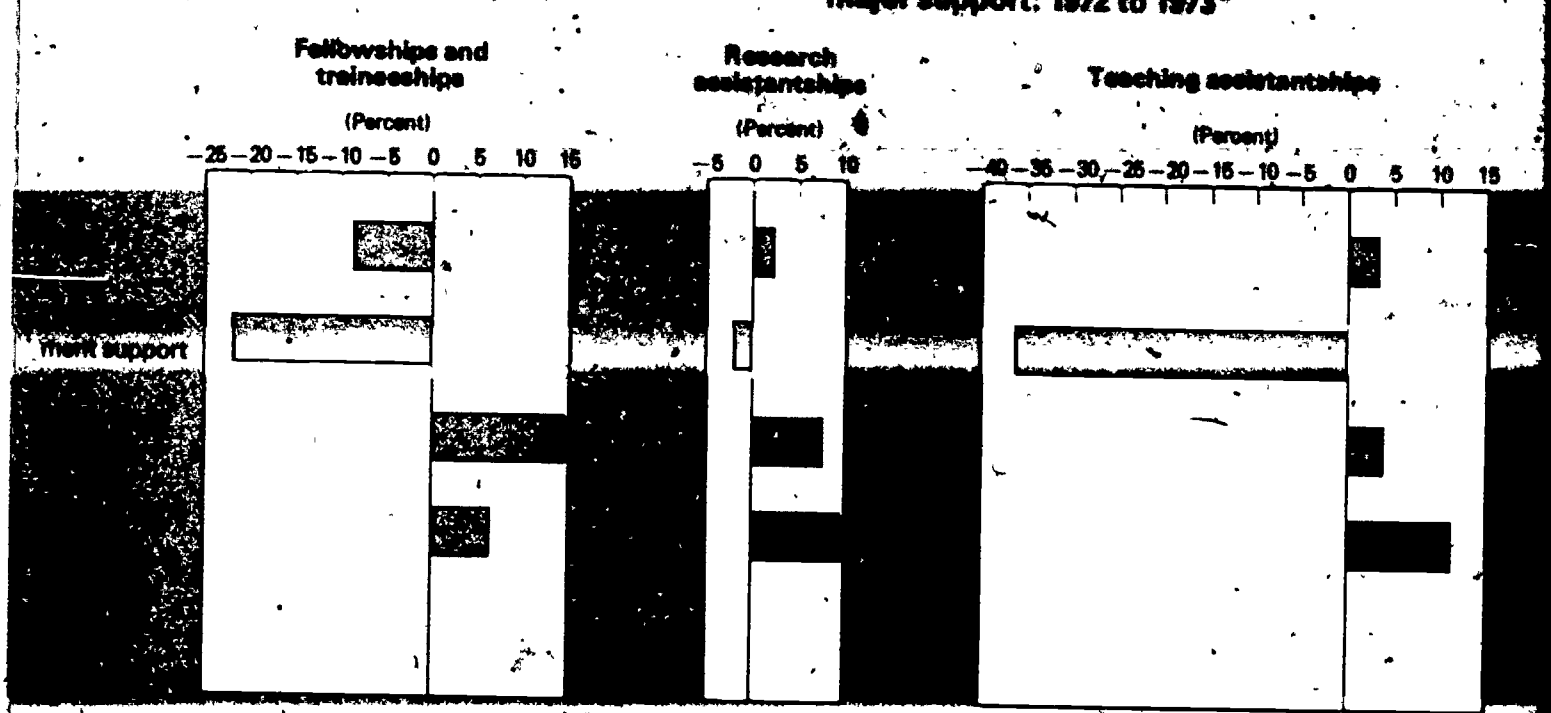
Each of the four types of support mechanisms utilized by full-time students was affected by the curtailment of Federal programs, with research assistantships being the least affected. Increases in institutional support also influenced each category, but primarily those holding fellowships and traineeships. Other sources of outside support, such as industry and private foundations, also led to increases in all mechanisms with the exception of "other" types.

CONTROL OF INSTITU

When support mechanisms were examined institution in which students were enrolled, fe public universities dropped at almost twice the Research assistants fared about the same in assistantships increased at over twice the rate i

- These changes were examined in each are that fellowship-traineeship support in pub highest rate in the physical sciences, a mathematical sciences. The drop in private trainees was also highest in the physical sc sciences.

Change in full-time graduate science and engineering enrollment, by source an major support: 1972 to 1973[a]



[a]Based on 4,112 graduate departments reporting in 1972 and 1973.
SOURCE: National Science Foundation

rt were itemized on the questionnaire: assistantships, teaching assistantships, and ach mechanism, refer to the technical notes.

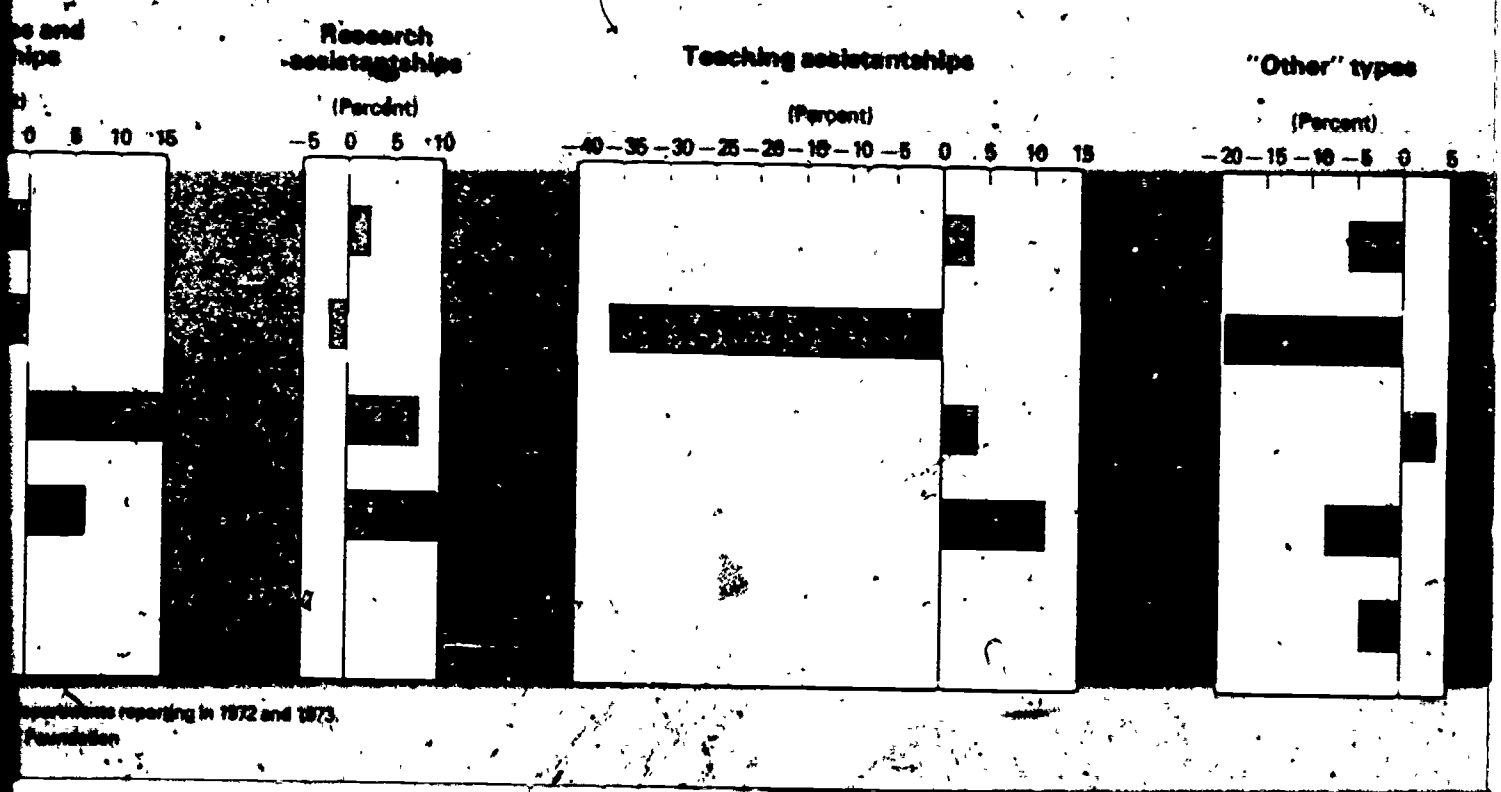
rt mechanisms utilized by full-time students ederal programs, with research assistantships h institutional support also influenced each g fellowships and traineeships. Other sources and private foundations, also led to increases on of "other" types.

CONTROL OF INSTITUTIONS

When support mechanisms were examined in terms of the control of the institution in which students were enrolled, fellowship-traineeship holders in public universities dropped at almost twice the rate as those in private schools. Research assistants fared about the same in both sectors, while teaching assistantships increased at over twice the rate in private as public institutions.

- These changes were examined in each area of science, where it was found that fellowship-traineeship support in public universities dropped at the highest rate in the physical sciences, and at the lowest rate in the mathematical sciences. The drop in private university support to fellows-trainees was also highest in the physical sciences, but lowest in the social sciences.

hange in full-time graduate science and engineering enrollment, by source and type of major support: 1972 to 1973[a]



reporting in 1972 and 1973.
Foundation

- Research assistantship support was up in both public and private sectors as stated earlier, but both the physical and mathematical sciences lost students dependent on this mechanism, while all other sciences gained.

- Each area of science reflected higher levels of teaching assistantship support, with private universities boosting this support at the highest rate in all fields.

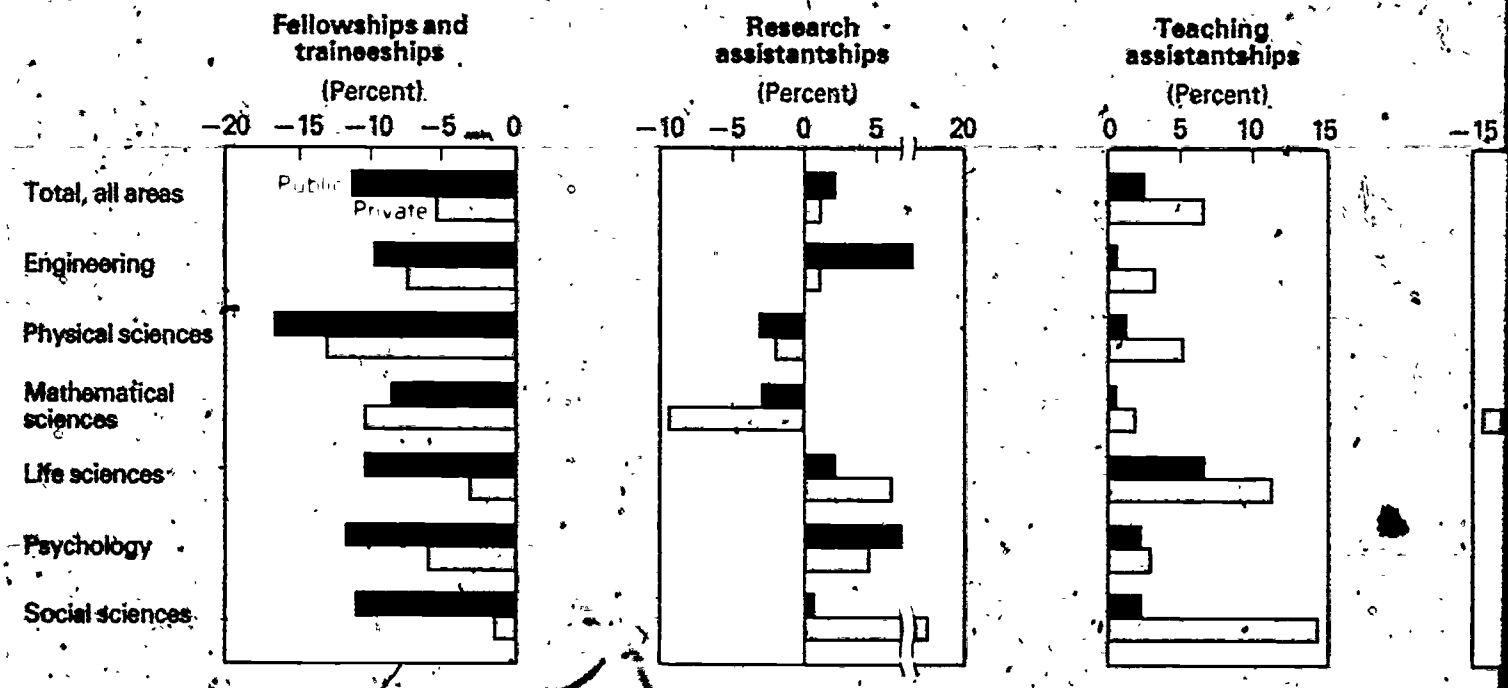
- Neither the public nor the private sector saw an increase in "other" types of support, primarily self-support. In this group, reductions were felt in every area of science except psychology, where a gain of over 20 percent was registered in institutions under private control

Percent change in full-time g in matched departments, by ty and control of institutio

Type of major support	Tot
Total	-2.
Fellowships and traineeships	-8.
Research assistantships	1.
Teaching assistantships	3.
Other types of support	-5.

NOTE. Based on 4,112 graduate depa and 1973

Change in full-time graduate enrollment, by area of science, type of major s control of institution: 1972 to 1973[a]



[a]Based on 4,112 graduate departments reporting in 1972 and 1973.
[b]Less than 0.5 percent change.
SOURCE: National Science Foundation

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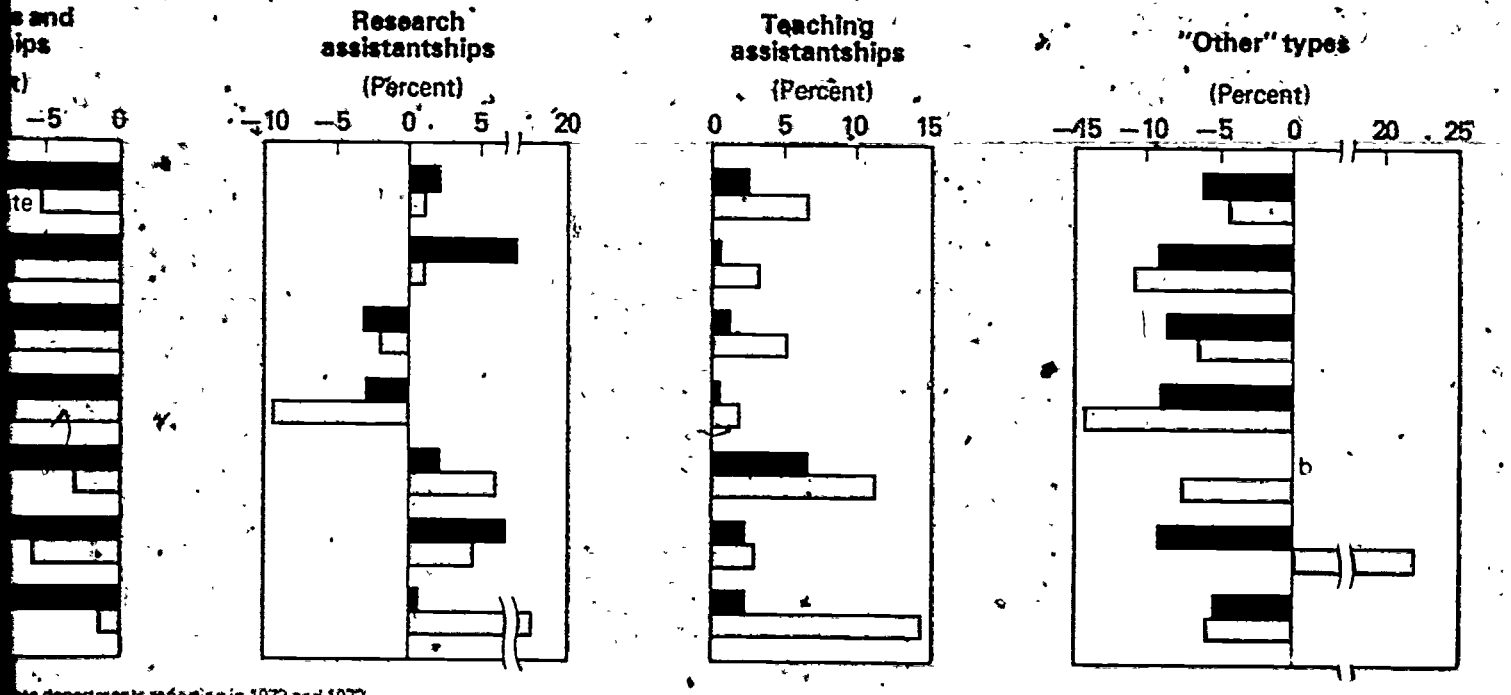
. In this group, reductions were felt in every
ology, where a gain of over 20 percent was
private control.

Percent change in full-time graduate enrollment in matched departments, by type of major support and control of institution: 1972 to 1973

Type of major support	Total	Control of institution: Public	Private
Total	-2.5	-2.7	-1.8
Fellowships and traineeships	-8.9	-11.3	-5.6
Research assistantships	1.9	2.1	1.1
Teaching assistantships	3.1	2.4	6.5
Other types of support	-5.8	-6.2	-4.6

NOTE. Based on 4,112 graduate departments reporting in 1972 and 1973

Change in full-time graduate enrollment, by area of science, type of major support, and control of institution: 1972 to 1973[a]



te departments reporting in 1972 and 1973.
change.
nce Foundation

Level of Study

The 1-percent decrease between 1972 and 1973 in numbers of full-time first-year students and the 3-percent decline in those studying beyond their first year were examined in terms of the mechanisms utilized for their support. The increase in first-year research and teaching assistantships partially offset the losses in fellows-trainees and those dependent on "other" mechanisms who entered graduate work for the first time.

Citizenship

The number of foreign graduate students continued to decline, although the rate slowed to about the same as that of U.S. citizens. Unlike U.S. citizens, foreign students actually received more fellowships and traineeships in 1973 than in 1972, and fewer research assistantships. However, the number who were dependent on "other" mechanisms—primarily self-support—dropped at a faster rate than did U.S. citizens.

Psychology was the only area of science to show an increase in foreign student enrollment. All other areas showed decreases at approximately the same relative level as that of U.S. citizens. However, full-time enrollment of U.S. citizens in the life sciences remained steady, while foreign student enrollment dropped 2 percent.

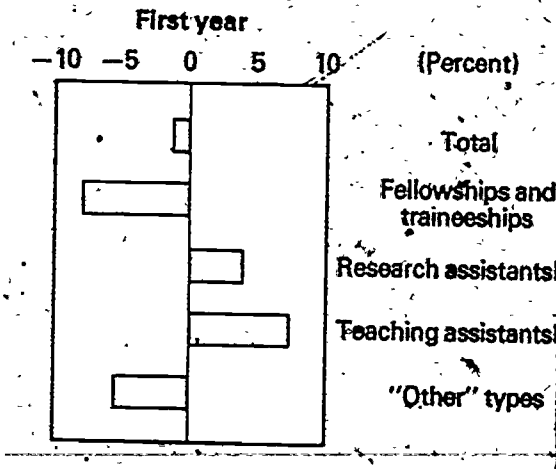
Percent change in full-time graduate enrollment in matched departments, by area of science and citizenship: 1972 to 1973

Area of science	Total	U.S. citizens	Foreign students
Total all areas	-2.5	-2.6	-2.0
Engineering	-3.3	-3.1	-3.5
Physical sciences	-3.5	-3.6	-2.8
Mathematical sciences	-4.5	-4.8	-3.2
Life sciences	-.2	.1	-2.0
Psychology	-1.9	-3.4	4.9
Social sciences	-2.7	-2.9	-1.5

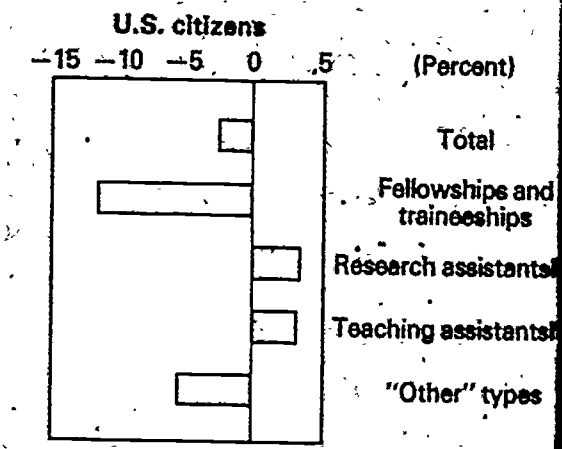
NOTE: Based on 4,112 graduate departments reporting in 1972 and 1973.

Some institutions have restricted enrollmen
order to admit more U.S. citizens. Also, due t
Federal visa restrictions were recently imposed
student's financial means to pay for the entire

**Change in full-time graduate scie
enrollment, by level of study and t
1972 to 1973[a]**



**Change in full-time graduate scie
enrollment, by citizenship and ty
1972 to 1973[a]**



[a]Based on 4,112 graduate departments reporting in 1972 and
SOURCE: National Science Foundation

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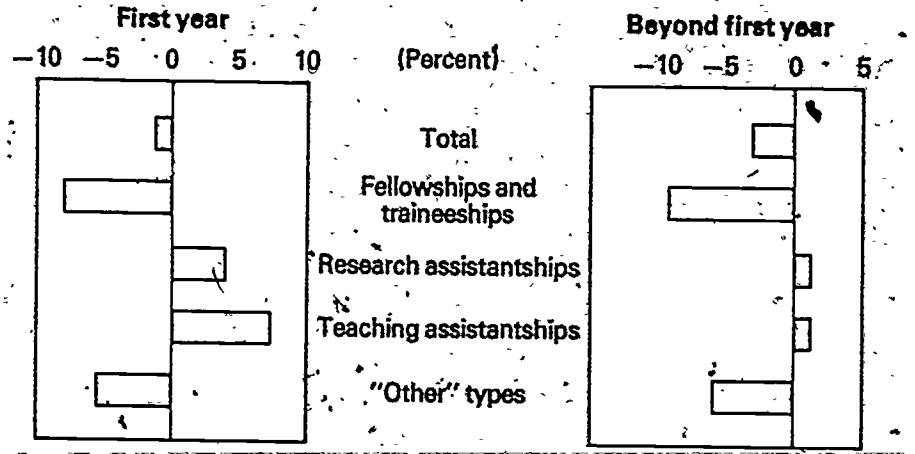
in full-time graduate
tched departments, by
e and citizenship:
to 1973

Total	U.S. citizens	Foreign students
-2.5	-2.6	-2.0
-3.3	-3.1	-3.5
-3.5	-3.6	-2.8
-4.5	-4.8	-3.2
-.2	.1	-2.0
-1.9	-3.4	4.9
2.7	3.9	1.5

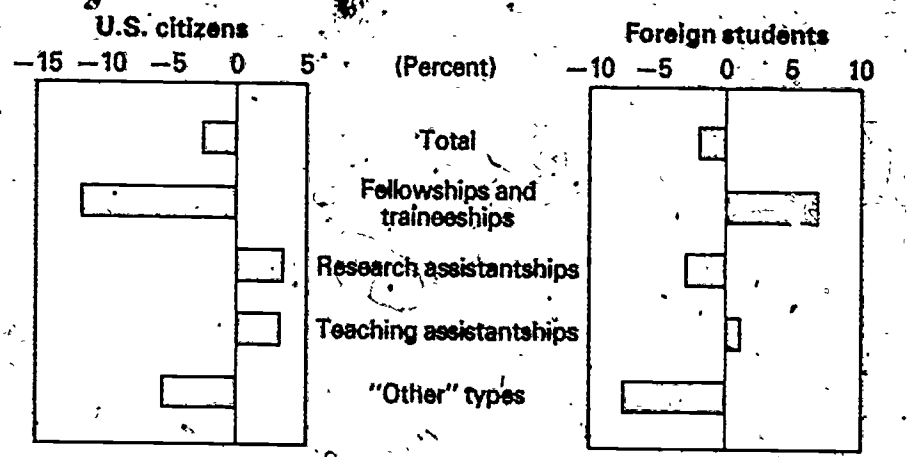
te departments reporting in 1972 and 1973.

Some institutions have restricted enrollment of foreign graduate students in order to admit more U.S. citizens. Also, due to tight labor market conditions, Federal visa restrictions were recently imposed that require proof of the foreign student's financial means to pay for the entire period of study.

Change in full-time graduate science and engineering enrollment, by level of study and type of major support: 1972 to 1973[a]



Change in full-time graduate science and engineering enrollment, by citizenship and type of major support: 1972 to 1973[a]

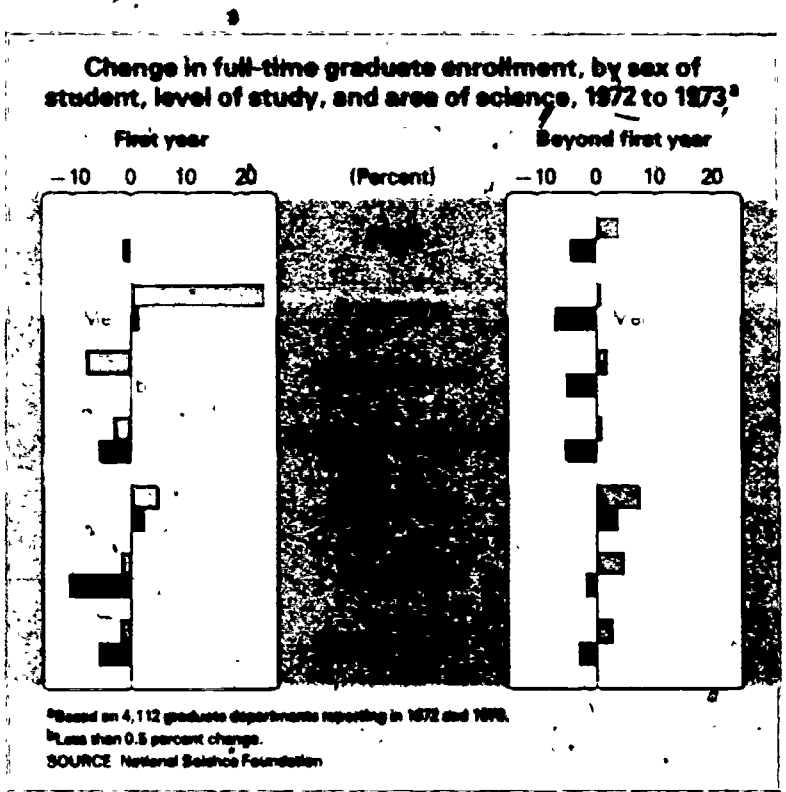


[a]Based on 4,112 graduate departments reporting in 1972 and 1973.
SOURCE: National Science Foundation

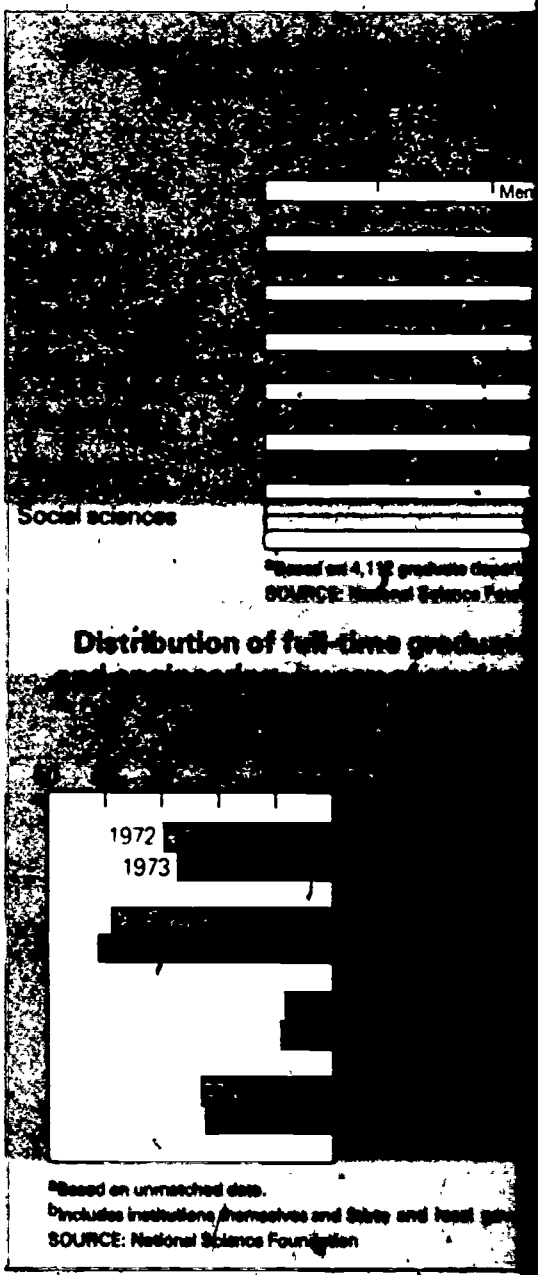
Sex of Graduate Students

Separate statistics on major sources of support and on level of graduate study were collected in this survey for men and women enrolled on a full-time basis. From 1972 to 1973, the enrollment of male full-time graduate science students declined 4 percent, dropping in every area of science. The number of women graduate students, on the other hand, increased in engineering, psychology, and the life and social sciences. Declines in the rate of enrollment of women occurred in only two areas, the physical and mathematical sciences.

First year enrollment of male graduate students increased slightly in engineering and the life sciences and remained stable in the physical sciences, reflecting better prospects for job opportunities in these fields. The number of male students attending beyond their first year dropped in every area except the life sciences. Women first year students entered graduate engineering studies at the highest rate experienced to date, over 20 percent more in 1973 than in 1972, but they still accounted for less than 5 percent of all engineering graduate students. In every area of science, the proportion of women graduate students has risen slightly over 1972, with the greatest proportional increase occurring in psychology.



The general drop in federally supported fu
women equally between 1972 and 1973 and bo
support. The distribution of all sources of supp
both men and women in both years.



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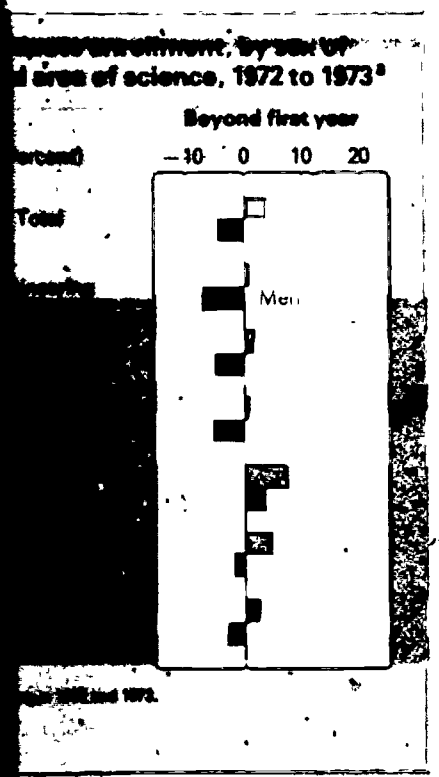
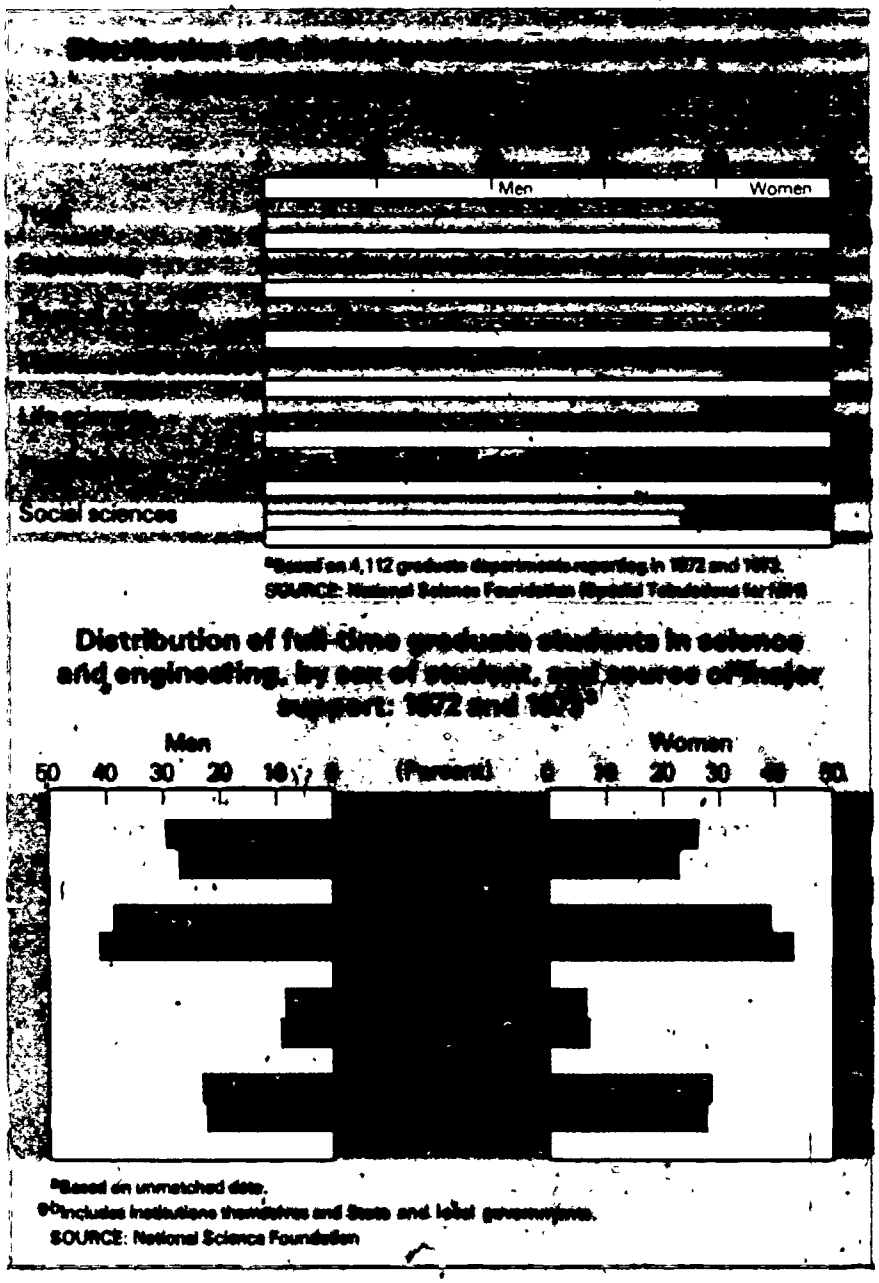
graduate students



The general drop in federally supported full-time students affected men and women equally between 1972 and 1973 and both received increased institutional support. The distribution of all sources of support remained virtually the same for both men and women in both years.



SOURCE: National Science Foundation

Type of Institution

As in all previous reports, graduate institutions were classified into four major categories: (1) The "first 20," referring to those selected by the largest number of graduate student applicants for NSF fellowships during 1968-73, (2) the 85 "developing" institutions, those that granted science Ph.D.'s for the first time beginning in 1960-61; (3) the 104 medical schools granting doctorates in science, and (4) all the 130 remaining institutions, classified for this purpose as "intermediate." Full-time enrollment was calculated for each of these categories, by area of science and level of study. Because graduate students enrolled in medical schools accounted for only 7,400 out of the 147,300 full-time students in matched departments, or only 5 percent, this category does not appear on the accompanying chart. In later surveys, as survey coverage of clinical-medical departments is expanded, data will be analyzed and illustrated more fully.

In 1973 the "first 20" institutions attracted 2
than in 1972, while "developing" institutions en
and "intermediates" almost 4 percent less. The
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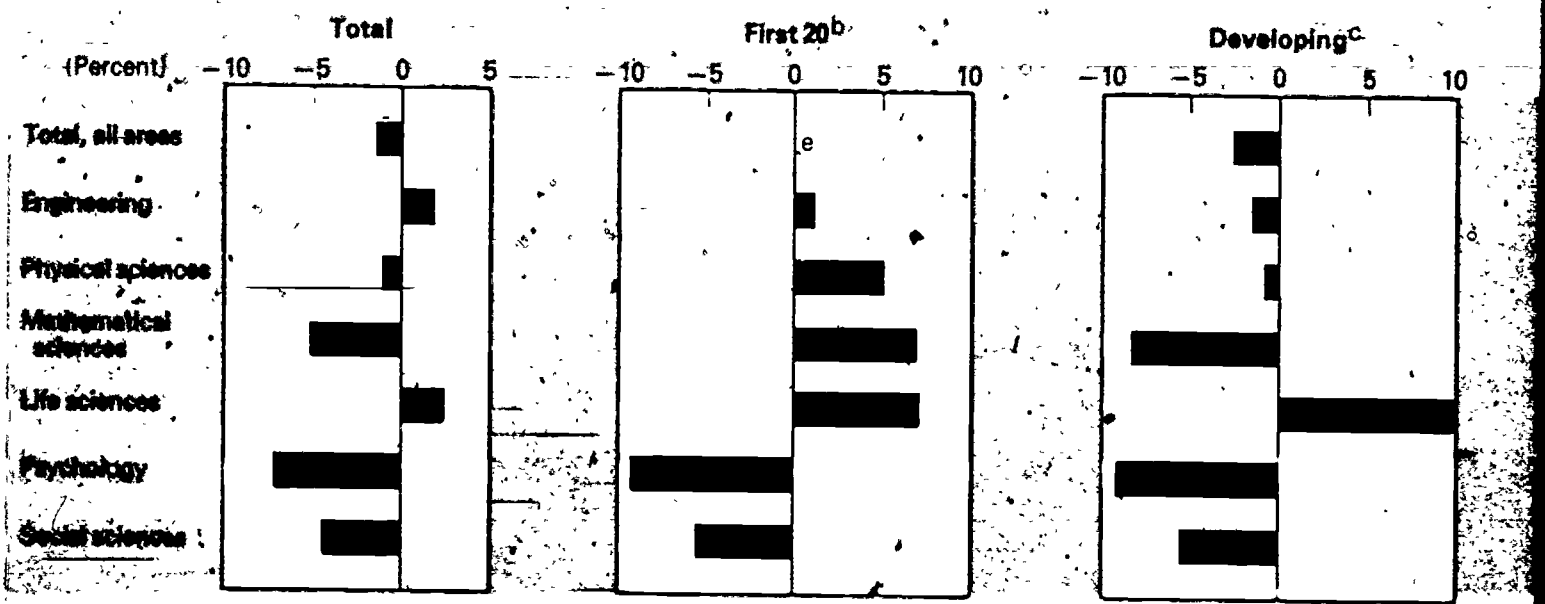
enrollment gains evident in all areas except psy

The drop in first-year full-time enrollmer
offset by a 2-percent increase in the number of
first year. Only the life sciences enrolled more
1972 in these developing institutions; all other
"intermediate" institutions enrolled 2 percent f
1972 and 1973.

**Change in first-year full-time graduate enrollment, by area of science and type of instit
1972 to 1973[a]**



[a]Based on 4,112 graduate departments reporting in 1972 and 1973.
[b]Institutions chosen most frequently by NSF Fellows, 1968-73.
[c]Institutions granting science Ph.D.'s beginning in 1960-61.
[d]Remaining institutions surveyed, with the exceptio
[e]Less than 0.5 percent change
SOURCE: National Science Foundation

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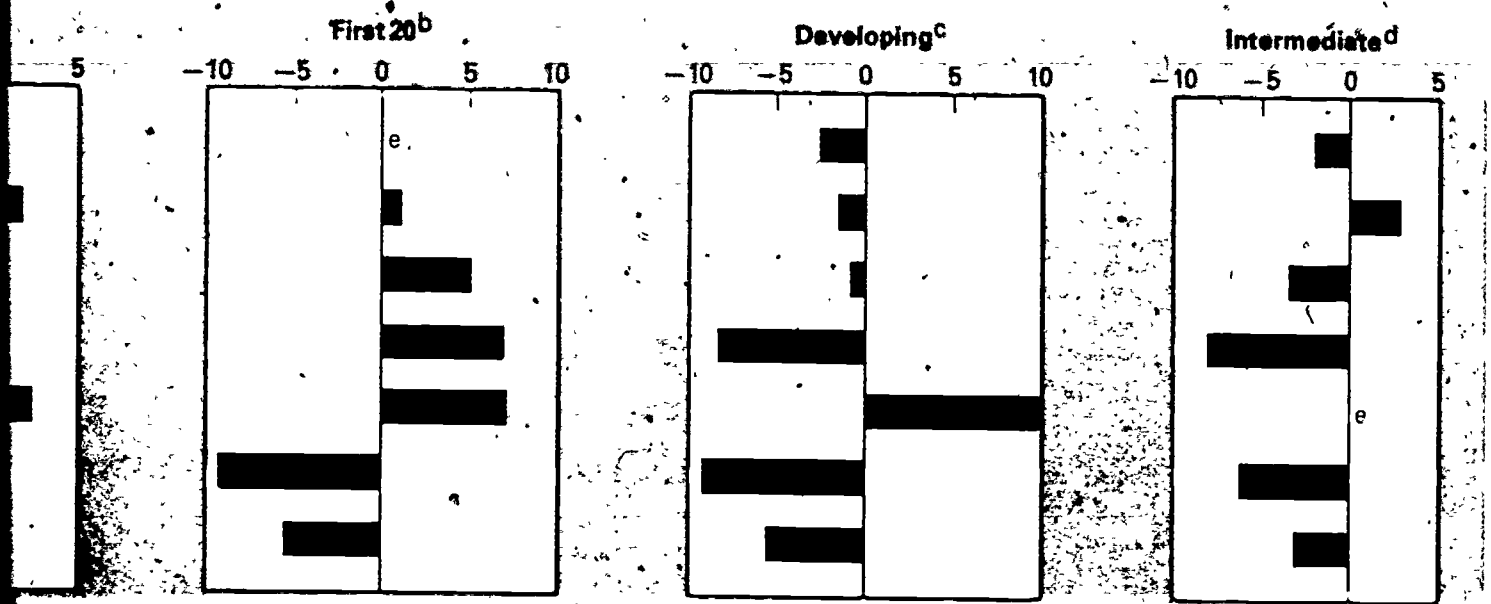
In 1973 the "first 20" institutions attracted 2 percent fewer full-time students than in 1972, while "developing" institutions enrolled about the same as in 1972, and "intermediates" almost 4 percent less. The first-year segment of enrollment in the "first 20" group actually remained at slightly above the 1972 total, with enrollment gains evident in all areas except psychology and the social sciences.

The drop in first-year full-time enrollment in "developing" schools was offset by a 2-percent increase in the number of students attending beyond their first year. Only the life sciences enrolled more first-year students in 1973 than in 1972 in these developing institutions, all other sciences showed decreases. The "intermediate" institutions enrolled 2 percent fewer first-year students between 1972 and 1973.

first-year full-time graduate enrollment, by area of science and type of institution: 1972 to 1973[a]



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nce Ph.D's beginning in 1960-61.

[d]Remaining institutions surveyed, with the exception of medical schools.
[e]Less than 0.5 percent change
SOURCE: National Science Foundation

Level of Department

The matched doctorate departments enrolled over 141,200 full-time students in 1973, or a decrease of 3 percent from the 1972 total; however, master's departments enrolled about 9,800 full-time students, up almost 6 percent from 1972. The decrease in doctorate department enrollment occurred in every area of science; in master's departments, only the physical sciences and psychology showed decreases. The shift in enrollment between doctorate and master's departments is indicative of the growing tendency of students to enroll in fields where less emphasis is placed on Ph.D. degrees for positions after graduation.

Percent change in full-time graduate enrollment in matched departments, by area of science and level of department: 1972 to 1973

Area of science	All graduate departments	Master's	Doctorate
Total, all areas	-2 5	5 6	-3 0
Engineering	-3 3	5 9	-3 8
Physical sciences	-3.5	-3 7	-3 5
Mathematical sciences	-4 5	16 6	-6 3
Life sciences	- 2	2 1	- 3
Psychology	-1 9	-6 8	-1 5
Social sciences	-2 7	10 8	-4 2

NOTE Based on 4,112 graduate departments reporting in 1972 and 1973

Graduate De
Schools

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**e enrollment
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1973**

	aster's	Doctorate
	5.6	-3 0
	5.9	-3.8
	3.7	-3.5
	6.6	-6.3
	2.1	-.3
	6.8	-1.5
	0.8	-4.2

reporting in 1972

Graduate Departments in Medical Schools

Because of the expansion of survey coverage between 1972 and 1973, as described in the technical notes, trend data in enrollment and support in the basic and clinical-medical departments can only be based on a limited number of departments for which data were supplied in both years. Graduate enrollment in these matched departments represents only 64 percent of the total reported, and therefore, trends discussed here should be viewed in the light of possible statistical bias due to this undercoverage.

Total graduate enrollment in medical schools increased 3 percent between 1972 and 1973, while enrollment in all graduate institutions combined waned. Full-time enrollment increased at a slightly higher rate than did part time, and students beyond their first year accounted for the major share of the increase.

Graduate enrollment in medical schools, by level of study and enrollment status: 1972 to 1973

Level of study and enrollment status	1972	1973	Percent change
Total	7,905	8,133	2.9
Full time	7,164	7,377	3.0
Part time	741	756	2.0
First year	2,413	2,406	(1)
Full time	2,148	2,169	1.0
Part time	265	237	-10.6
Beyond first year	5,492	5,727	4.3
Full time	5,016	5,208	3.8
Part time	476	519	9.0

NOTE: Matched data represent approximately 64 percent of total graduate enrollment in medical schools for the years 1972 and 1973.
[1] Less than 0.5 percent.

Full-time students relied heavily on institutional and self-support, which increased 27 percent and 20 percent, respectively, from 1972 to 1973. Federally supported students, who accounted for 3,400 of the 7,400 full-time students in matched departments, declined by 12 percent, attributable in large part to the National Institutes of Health (NIH) cutbacks in fellowships and training grants. Between fiscal years 1972 and 1973, NIH obligations were reduced by $41 million; nevertheless, NIH remained the chief Federal agency responsible for support of graduate education in medical schools, providing aid to 54 percent of the students receiving some form of Federal support.[7] Between 1972 and 1973, NIH supported 17 percent fewer full-time graduate students in medical schools.

[7] See National Science Foundation, *Federal Support to Universities, Colleges and Selected Nonprofit Institutions, Fiscal Year 1973* (NSF 75-305) (Washington, D.C. 20402: Supt. of Documents, U.S. Government Printing Office, 1975).

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NOTE: Matched data
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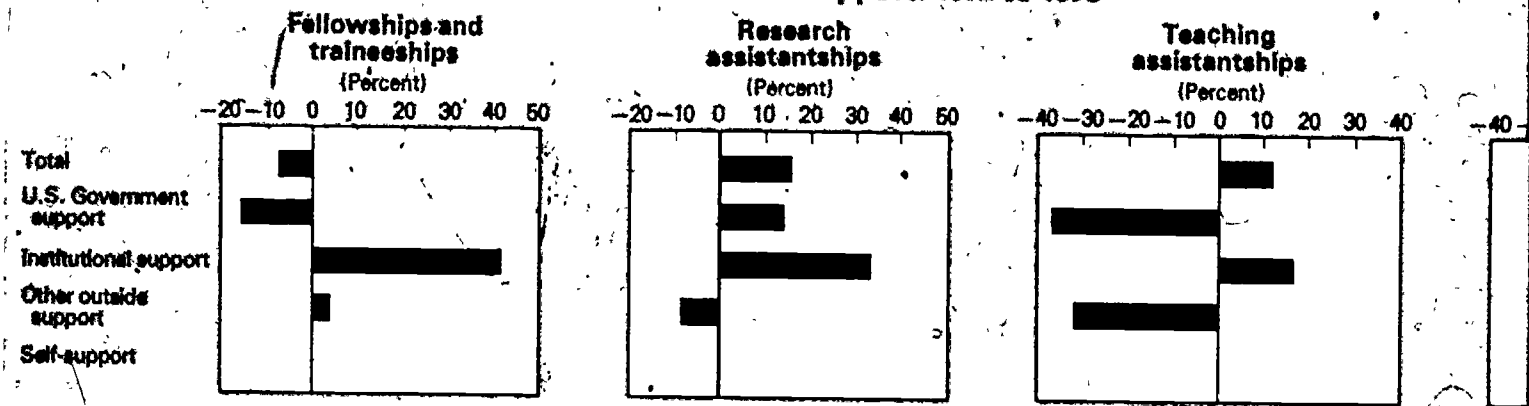
1972 and 1973.

Change in full-time graduate enrollment in medical schools, by type and source of m support: 1972 to 1973[a]



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SOURCE: National Science Foundation

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nt status:

1973	Percent change
8,133	2.9
7,377	3 0
756	2.0
2,406	(1)
2,169	1.0
237	-10.6
5,727	4.3
5,208	3.8
519	9 0

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Full-time students relied heavily on institutional and self-support, which increased 27 percent and 20 percent, respectively, from 1972 to 1973. Federally supported students, who accounted for 3,400 of the 7,400 full-time students in matched departments, declined by 12 percent, attributable in large part to the National Institutes of Health (NIH) cutbacks in fellowships and training grants. Between fiscal years 1972 and 1973, NIH obligations were reduced by $41 million; nevertheless, NIH remained the chief Federal agency responsible for support of graduate education in medical schools, providing aid to 54 percent of the students receiving some form of Federal support.[7] Between 1972 and 1973, NIH supported 17 percent fewer full-time graduate students in medical schools.

[7] See National Science Foundation, *Federal Support to Universities, Colleges and Selected Nonprofit Institutions, Fiscal Year 1973* (NSF 75-305) (Washington, D.C. 20402. Supt. of Documents, U.S. Government Printing Office, 1975).

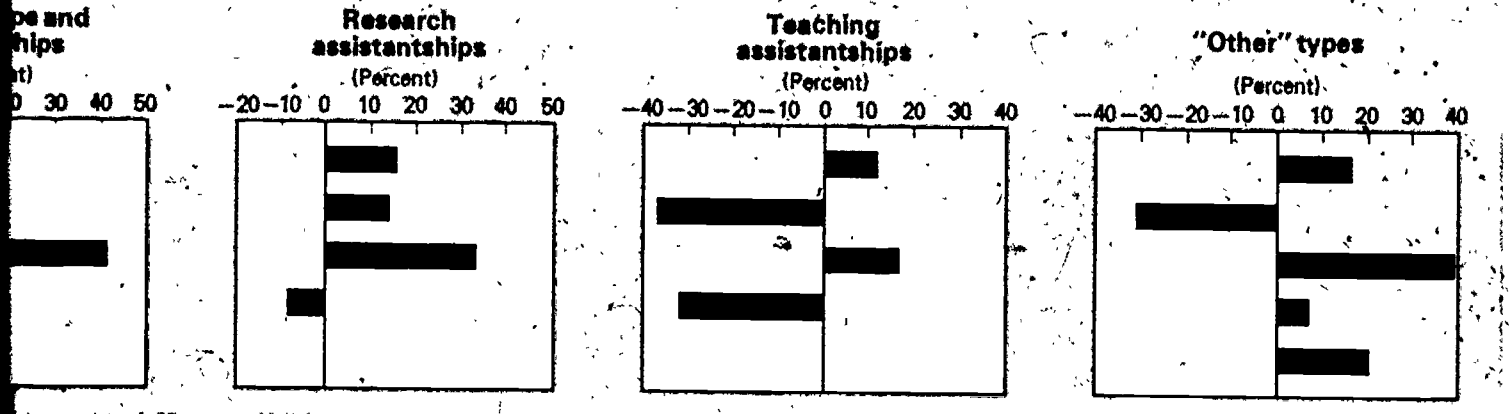
The increase in institutional support affected every mechanism; the decrease in Federal aid affected every mechanism except research assistantships. The net result of the decline in Federal support, offset by an increase in institutional and self-support, was an overall increase in every support mechanism except fellowships-traineeships.

Full-time graduate enrollment in medical schools, by source of major support: 1972 to 1973

Source of major support	1972	1973	Percent change
Total	7,164	7,377	3.0
U.S. Government support	3,889	3,418	-12.1
Institutional support	1,676	2,135	27.4
Other outside support	483	483	0
Self-support	1,116	1,341	20.2

NOTE, Matched data represent approximately 65 percent of the full-time graduate enrollment in medical schools for the years 1972 and 1973.

e in full-time graduate enrollment in medical schools, by type and source of major support: 1972 to 1973[a]



nt approximately 65 percent of full-time graduate enrollment in medical schools for the years 1972 and 1973.
nce Foundation

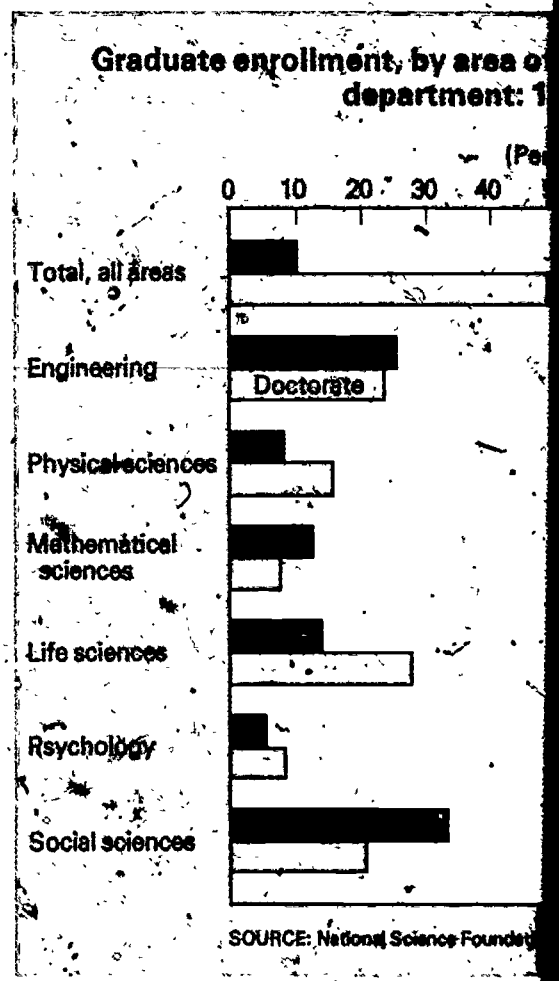
Section 2. FALL 1973 CHARACTERISTICS

GRADUATE ENROLLMENT

The 339 doctorate granting institutions surveyed in 1973 enrolled almost 218,000 graduate students in 6,559 science departments. Three fourths of these students attended classes on a full time basis and almost 90 percent of the total were enrolled in doctorate level departments. Within departments offering the master's as the highest degree program, a greater proportion of students attended part time, were in their first year of study, and were enrolled in public institutions. Also, students majoring in engineering, and the mathematical and social sciences were more likely to be enrolled in master's departments.

Characteristics of graduate enrollment, by level of department: 1973

Item	Total		Level of department			
	Number	Percent distribution	Master's	Percent distribution	Doctorate	Percent distribution
Total	217,962	100.0	22,721	100.0	195,241	100.0
Enrollment status						
Full time	164,318	75 4	12,709	55.9	151,609	77.7
Part time	53,644	24.6	10,012	44 1	43,632	22.3
Level of study						
First year	276,224	35.0	11,990	52.8	64,234	32.9
Beyond first year	141,738	65.0	10,731	47 2	131,007	67.1
Control of institution						
Public	151,830	69 7	17,228	75 8	134,602	68.9
Private	66,132	30 3	5,493	24 2	60,639	31.1



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rollment, by level of department: 1973

	Level of department.			
rcent ibution	Master's	Percent distribution	Doctorate	Percent distribution
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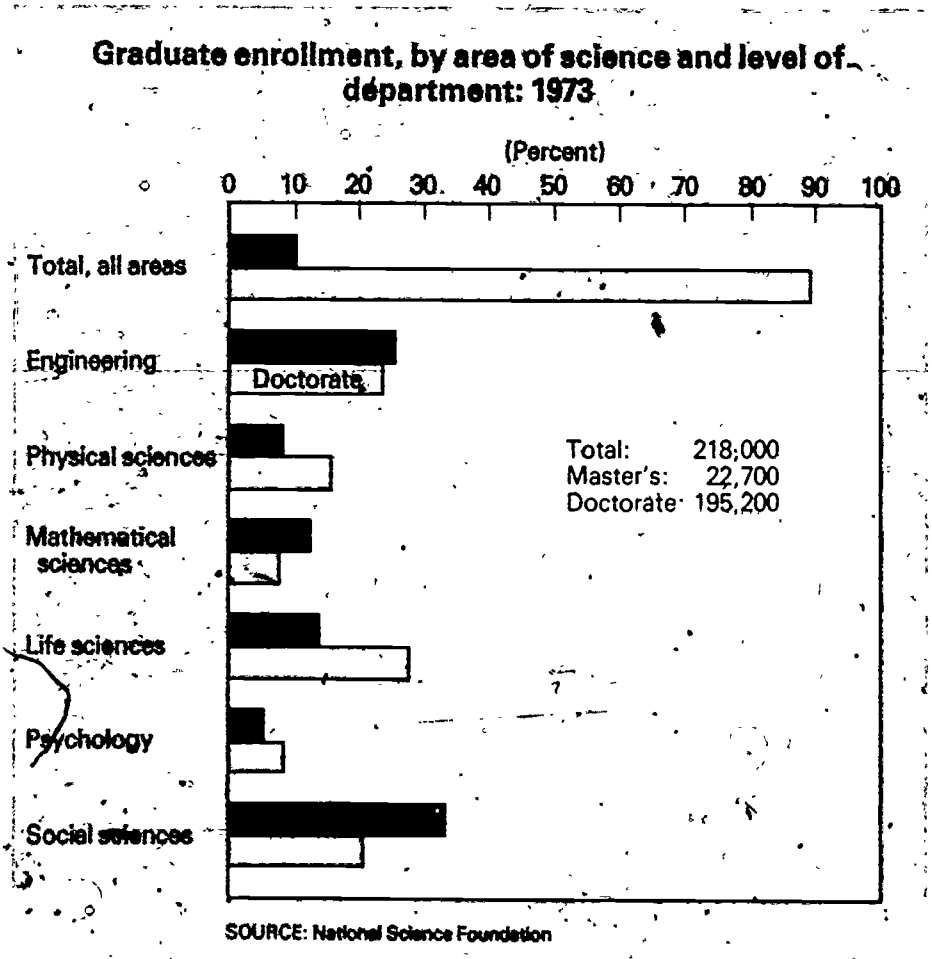
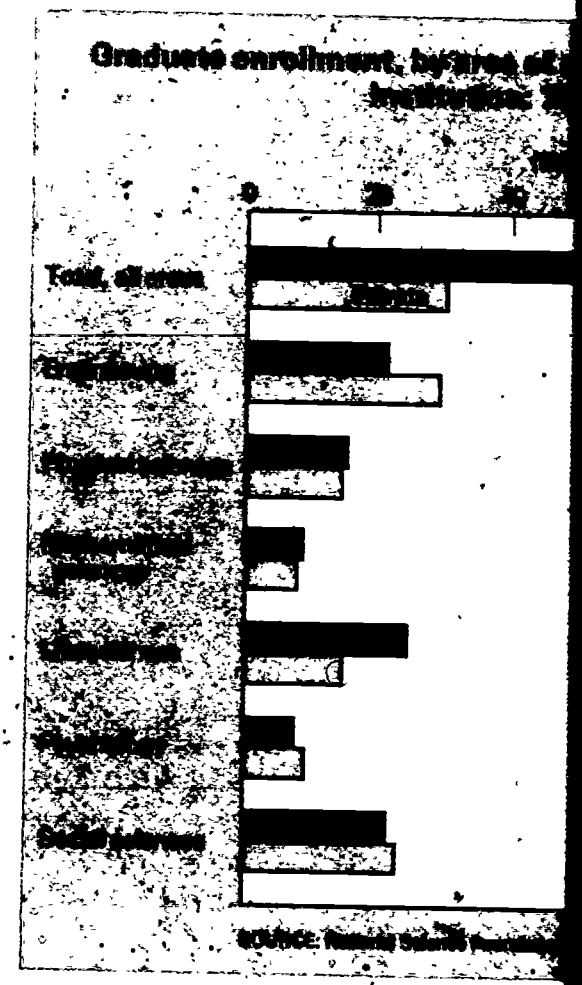


Public institutions tended to attract a higher proportion of full-time students than did private institutions. The relative number of first-year students was about the same in both public and private institutions and a slightly higher percentage of students was enrolled in private doctorate departments than in public ones. Institutions under public control attracted a higher percentage of students in the physical, mathematical, and life sciences; privately controlled institutions enrolled a higher proportion of engineering, psychology, and social science majors.



Characteristics of graduate enrollment, by control of institution: 1973

Item	Total		Control of institution			
	Number	Percent distribution	Public	Percent distribution	Private	Percent distribution
Total	217,962	100 0	151,830	100 0	66,132	100 0
Enrollment status						
Full time	164,318	75 4	120,072	79 1	44,246	66 9
Part time	53,644	24 6	31,758	20 9	21,886	33 1
Level of study						
First year	76,224	35 0	53,263	35 1	22,961	34 7
Beyond first year	141,738	65 0	98,567	64 9	43,171	65.3
Level of department						
Master's	22,721	10 4	17,228	11 3	5,493	8 3
Doctorate	195,241	89 6	134,602	88 7	60,639	91 7

sciences; privately controlled institutions

rollment, by control of institution: 1973

	Control of institution			
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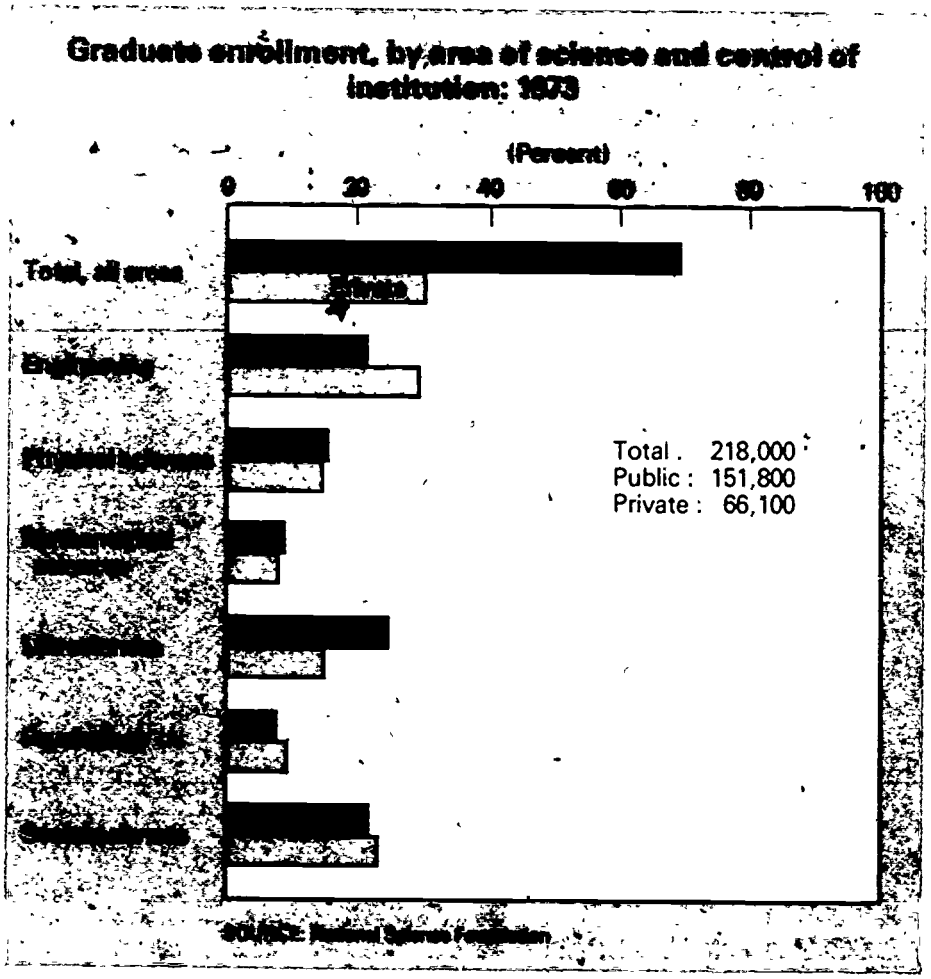
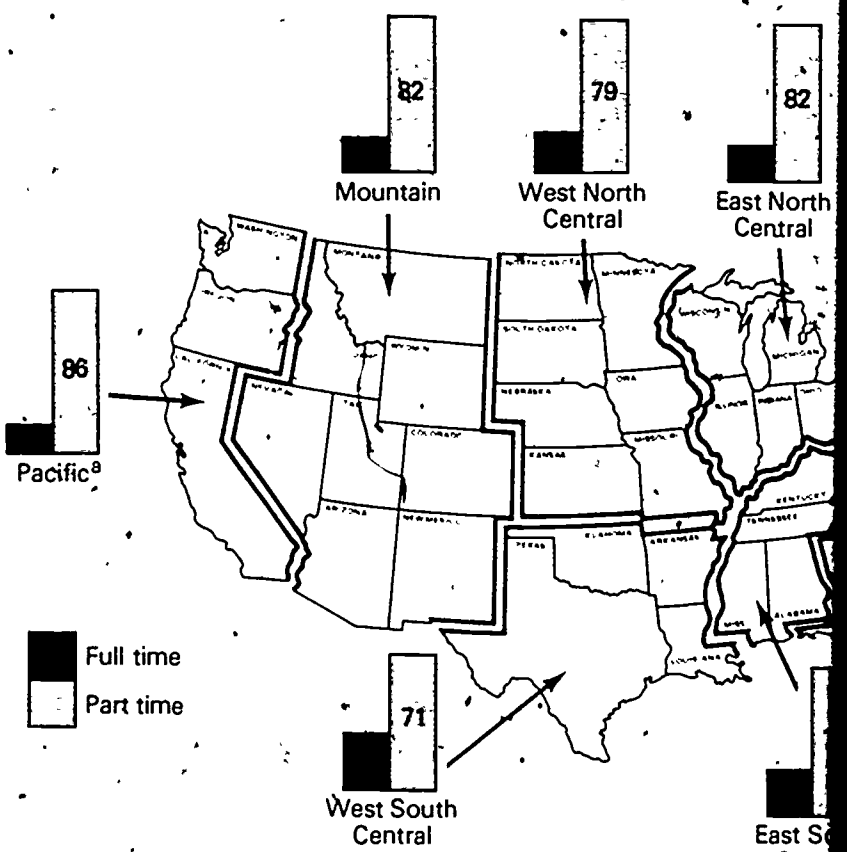


GEOGRAPHIC DISTRIBUTION

The largest number of graduate science students were enrolled in institutions located in the Middle Atlantic division, and accounted for almost 43,800, or 20 percent of the total. Ranked next in size was the East North Central division, with 42,000 students; the Pacific division ranked third with 30,800. The lowest number of graduate students were in the outlying areas, where less than 600 were located.

The highest percentage of full-time graduate students were enrolled in institutions in the Pacific division; the lowest, in the Middle Atlantic.

Geographic distribution of graduate students i engineering (In percents) by enrollment st



[a]Includes Hawaii and Alaska
SOURCE National Science Foundation

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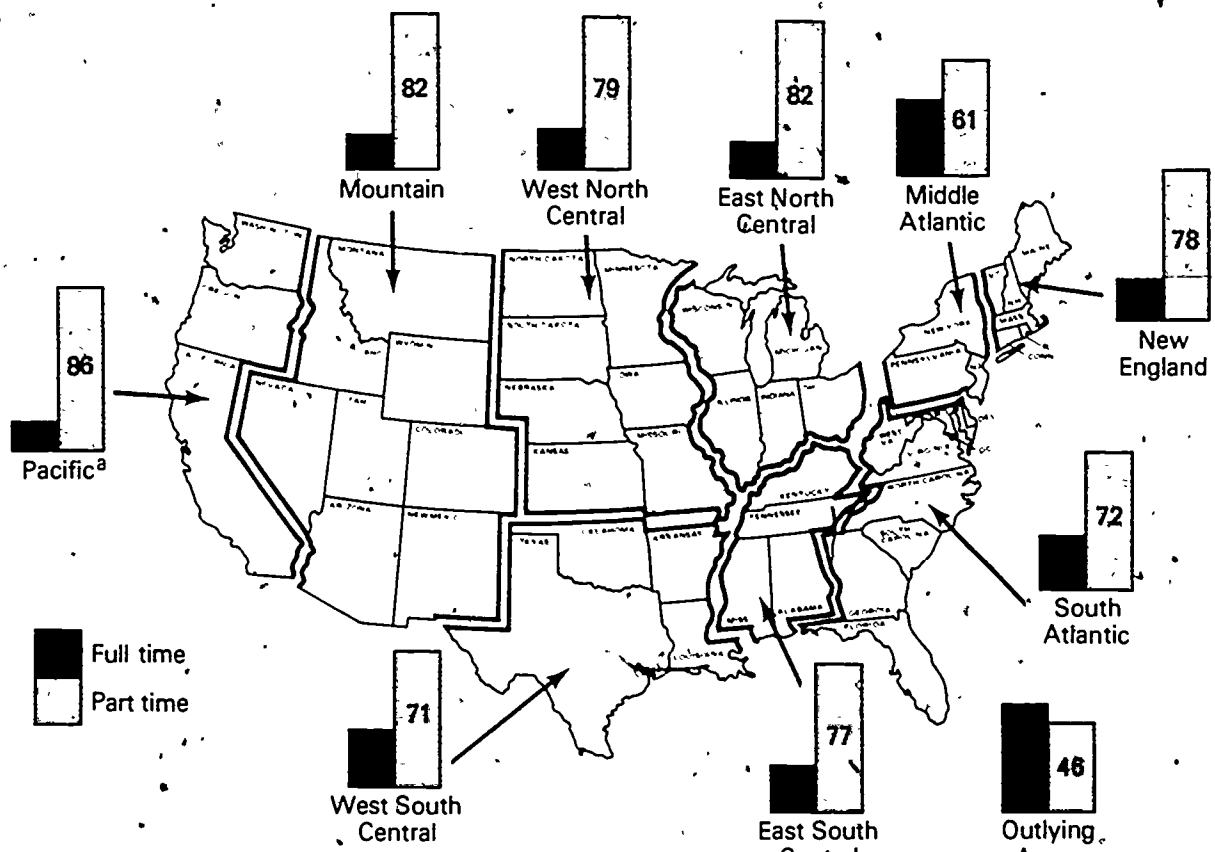
Geographic distribution of graduate students in science and engineering (In percents) by enrollment status: 1973

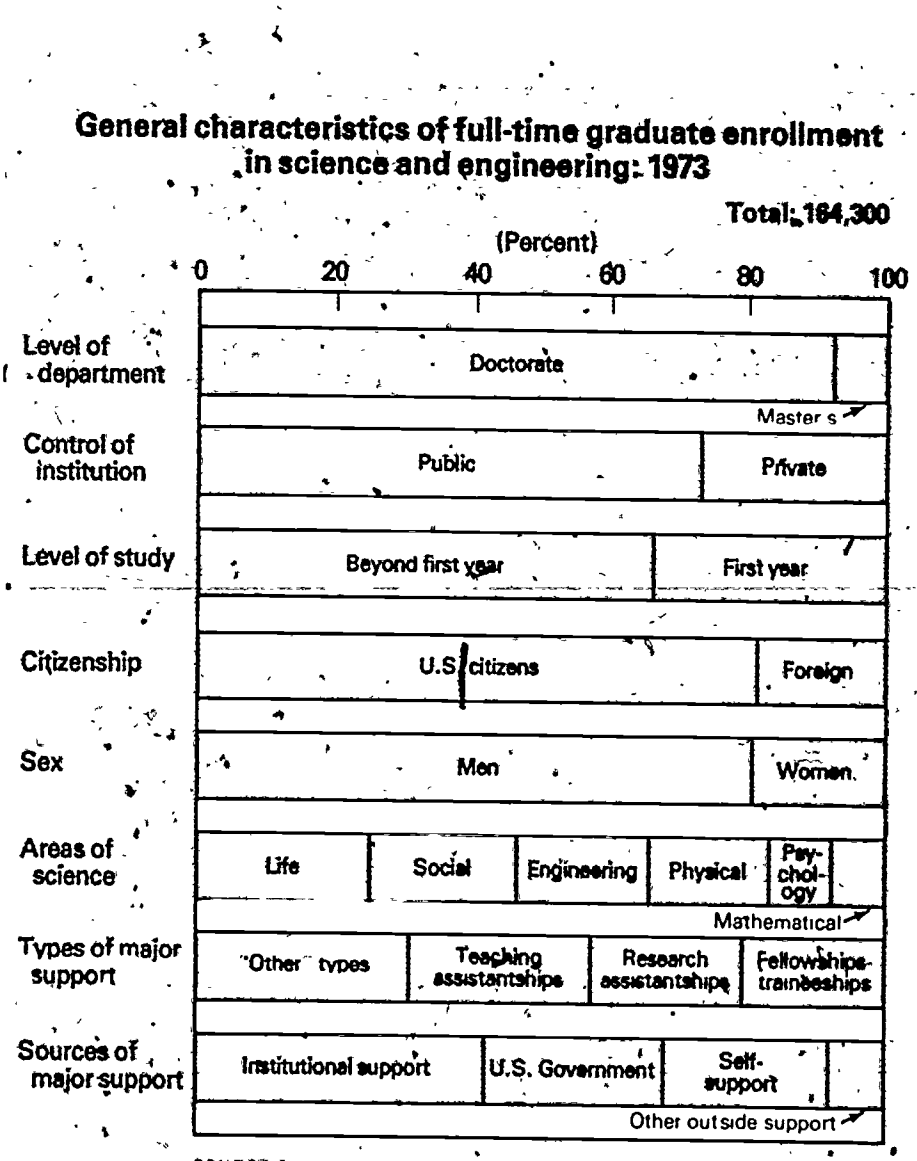


[a]Includes Hawaii and Alaska
SOURCE National Science Foundation

FULL-TIME GRADUATE STUDENTS

The characteristics of full-time graduate students remained virtually the same in 1973 as in 1972. The typical student was a male U.S. citizen studying beyond his first year in a public institution at a doctorate level; he was primarily enrolled in a field of study in the life sciences, and received the bulk of his support from his own institution.

General characteristics of full-time graduate enrollment in science and engineering: 1973



SOURCE: National Science Foundation

Source of Major Support

In 1973, as in other recent years, the domin
and engineering enrollment shifted from th
institutions themselves and to State and local go
and U.S. citizens relied heavily on such
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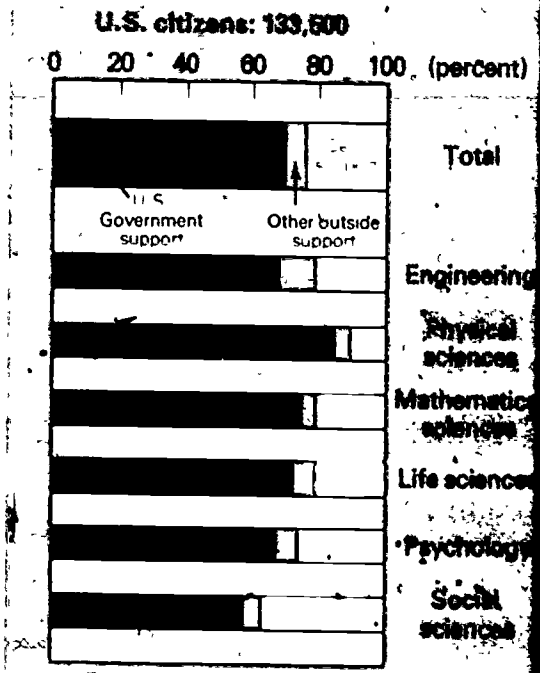
support. The general pattern was maintained in
there were shifts in the utilization of support

Distribution of full-time graduate major support, area of science



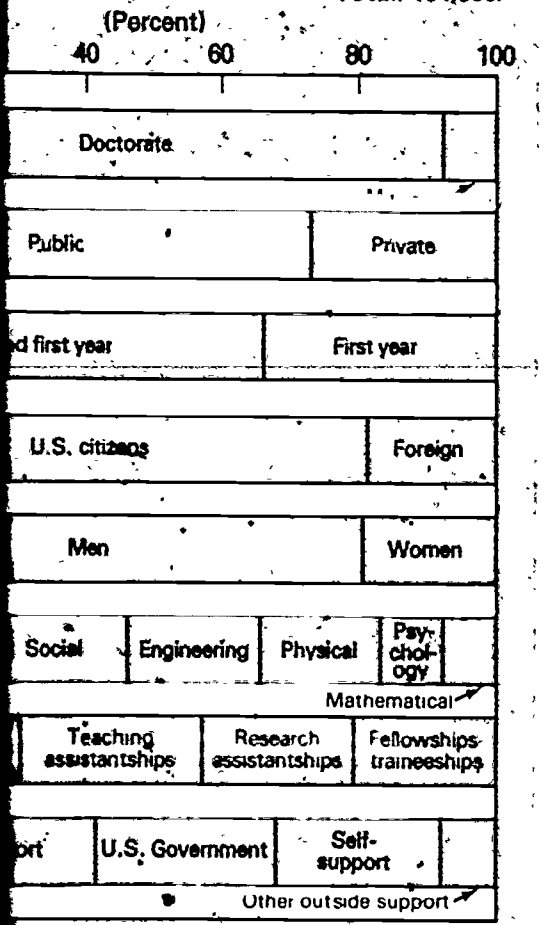
SOURCE: National Science Foundation

E STUDENTS

ime graduate students remained virtually the pical student was a male U.S. citizen studying nstitution at a doctorate level; he was primarily fe sciences, and received the bulk of his support

s of full-time graduate enrollment and engineering: 1973

Total: 164,300

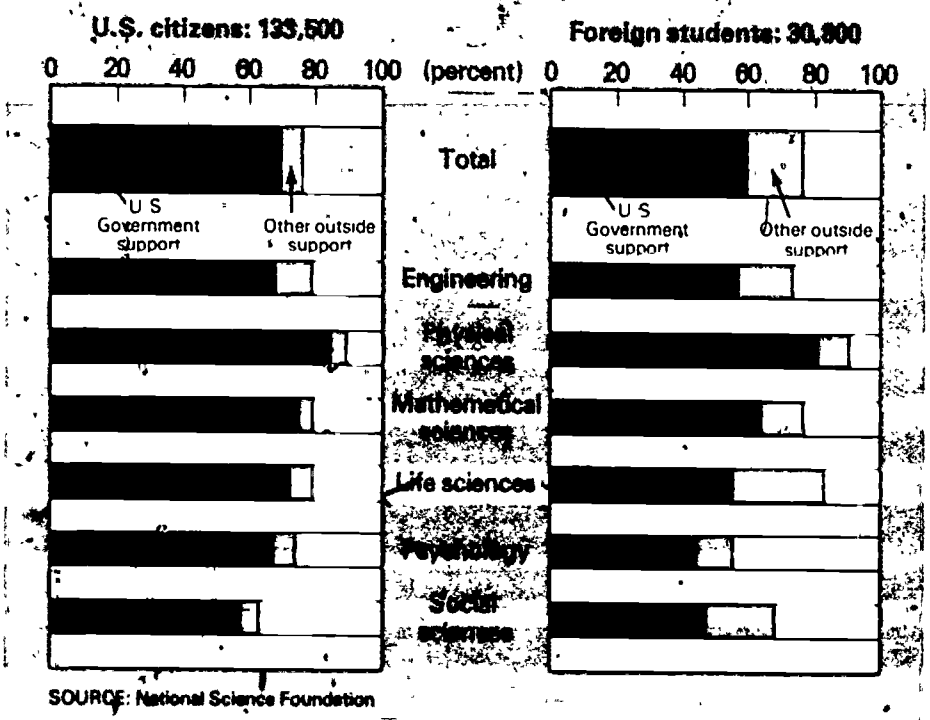


ce Foundation

Source of Major Support

In 1973, as in other recent years, the dominant role in the support of science and engineering enrollment shifted from the Federal Government to the institutions themselves and to State and local governments. Both foreign students and U.S. citizens relied heavily on such institutional support. Second in importance for both groups was Federal support, closely followed by self-support. The general pattern was maintained in the physical and life sciences, but there were shifts in the utilization of support in all other areas.

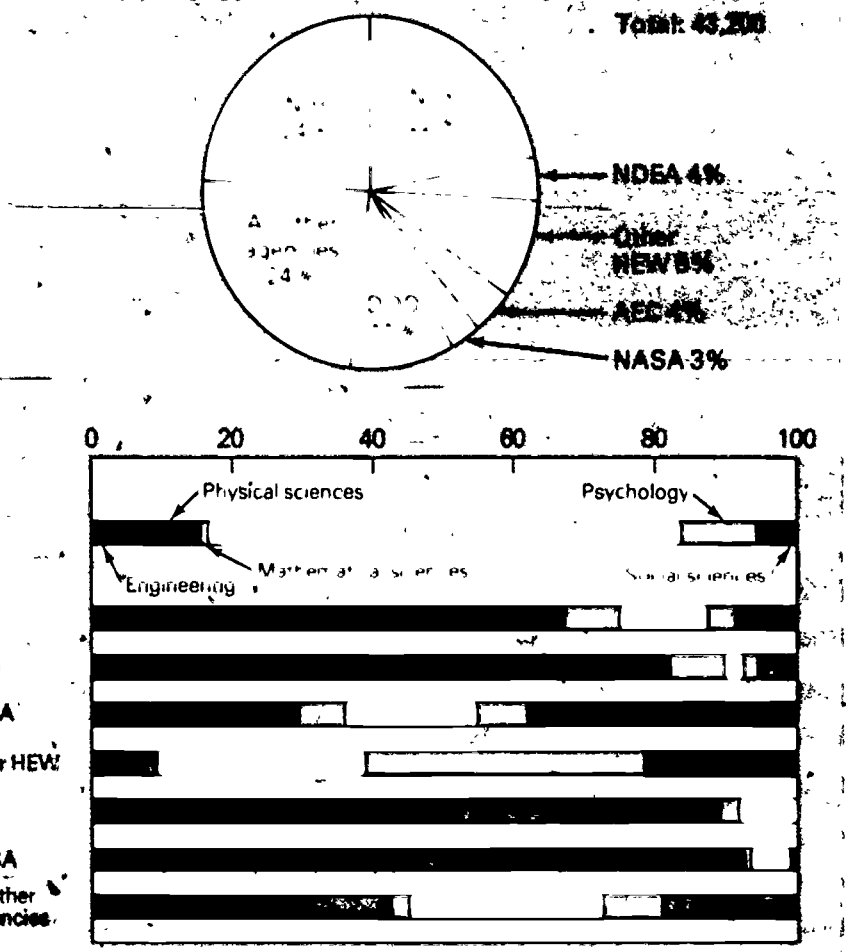
Distribution of full-time graduate students, by source of major support, area of science, and citizenship: 1973



SOURCE: National Science Foundation

Two Federal agencies played major roles in the support of graduate science education by supporting nearly one-half of all the full-time students receiving some form of Federal assistance. NIH, with 24 percent, and the National Science Foundation (NSF), with over 22 percent. These proportions were down slightly from those reported in 1972. 29 percent by NIH and 23 percent by NSF. NIH support continued to be concentrated in the life sciences and NSF, Atomic Energy Commission (AEC), and the National Aeronautics and Space Administration (NASA) in the physical sciences. The Department of Defense (DOD) primarily supported graduate students in engineering.

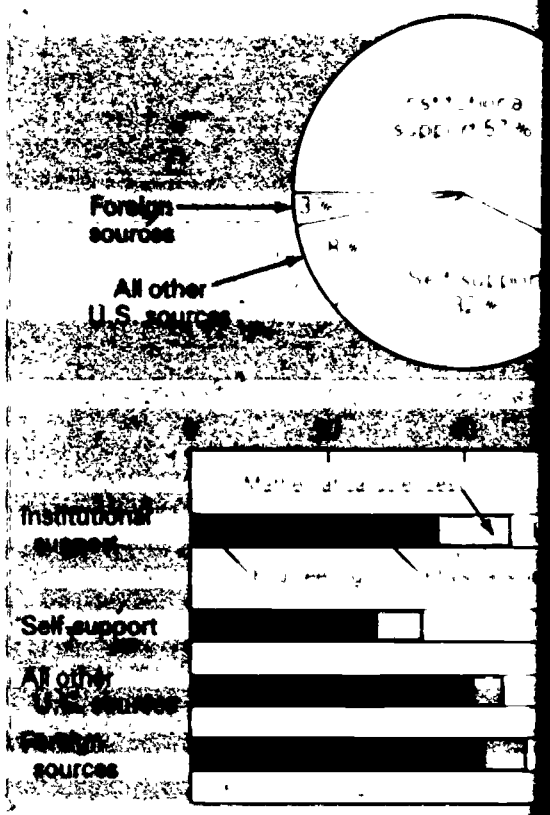
Distribution of federally supported full-time graduate students, by agency and area of science: 1973



SOURCE: National Science Foundation

The proportion of students receiving su sources shifted only slightly in 1973 from the prio up to 57 percent (from 55 percent) of the subsequent drop to 32 percent (from 34 perc Institutional support was fairly evenly distribute except psychology. Self-supported students v sciences.

Distribution of nonfederally graduate students, by source an



SOURCE: National Science Foundation

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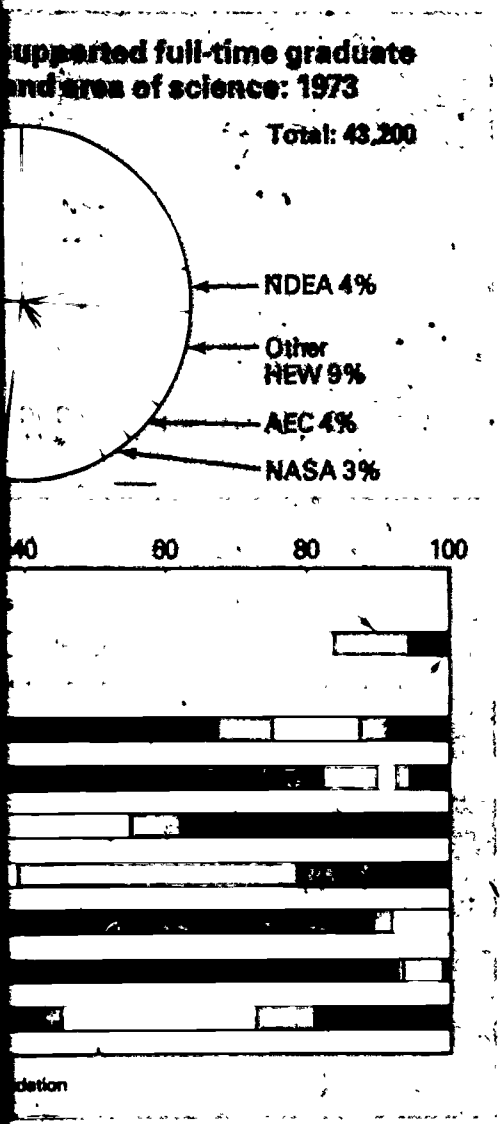
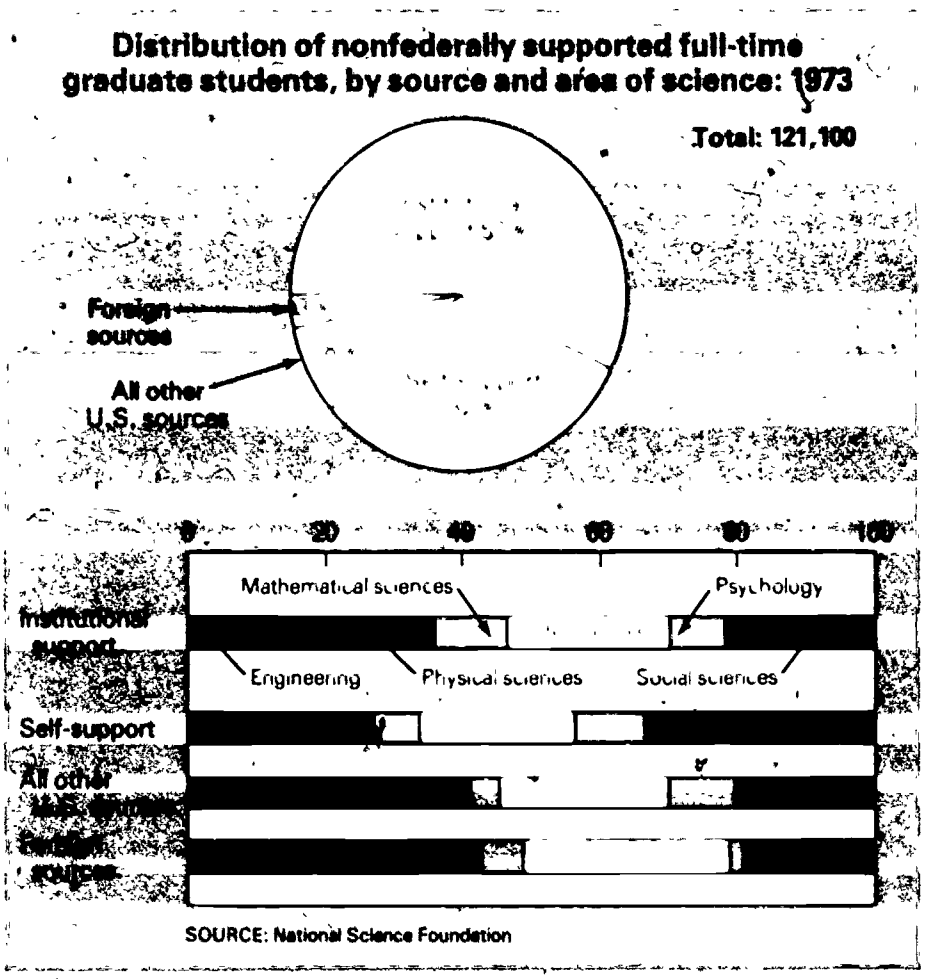
ces. The Department of Defense (DOD)
ts in engineering.

The proportion of students receiving support from other-than-Federal sources shifted only slightly in 1973 from the prior year. Institutional support went up to 57 percent (from 55 percent) of the non-Federal component with a subsequent drop to 32 percent (from 34 percent) in self-supported students. Institutional support was fairly evenly distributed among all the areas of science except psychology. Self-supported students were concentrated in the social sciences.





Type of Major Support

In 1973 the principal type of support utilized by graduate students was the category "other" mechanisms composed primarily of support provided by the students themselves 31 percent relied on their own resources with the help of loans and family assistance. Teaching assistantships were the major category of support of another 26 percent while research assistantships and fellowships-traineeships supported 22 percent and 21 percent each, respectively. The ranking in importance of the above mechanisms of support held true in public institutions; however, there was a shift in such dependence within private institutions, where over 33 percent of the students received a fellowship or traineeship "other" mechanisms ranked second, and research and teaching assistantships were the least used mechanisms.

Percent distribution of full-time graduate students, by type of major support and control of institution: 1973

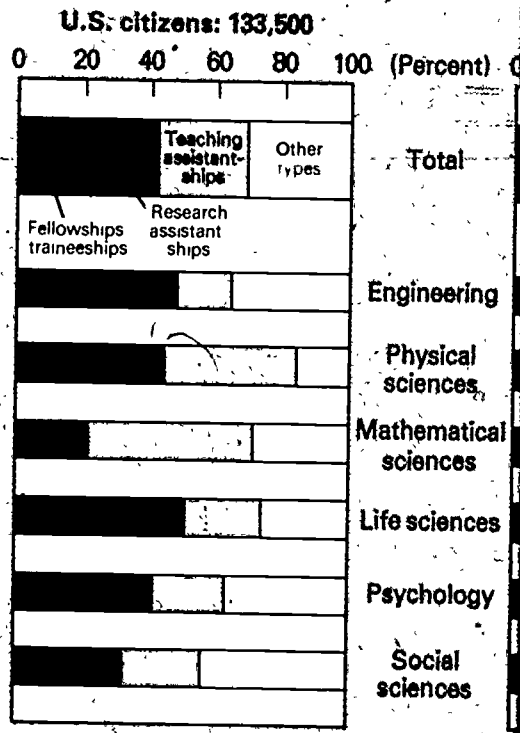
Type of major support	Control of institution	
	Public	Private
Total	100.0	100.0
Fellowships-traineeships	16.2	33.1
Research assistantships	23 0	19.2
Teaching assistantships	29.3	18.7
Other types of support	31 5	29.1

Citizenship

Both U.S. and foreign students relied heavi
support of their graduate education. Of each gr
"other" mechanisms for support. For U.S
assistantships ranked next in importance, whil
second for students from foreign countries. S
classroom communication are important factor
are selected as teaching assistants.

For U.S. citizens relying upon "other" m
enrolled the highest proportion of students. Fo
this resource, the greatest proportion was in psy
U.S. citizenship were concentrated in the n
foreign teaching assistants were most heavily i

**Distribution of full-time graduate
major support, area of science,**



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**tribution of full-time
lents, by type of major
ntrol of institution: 1973**

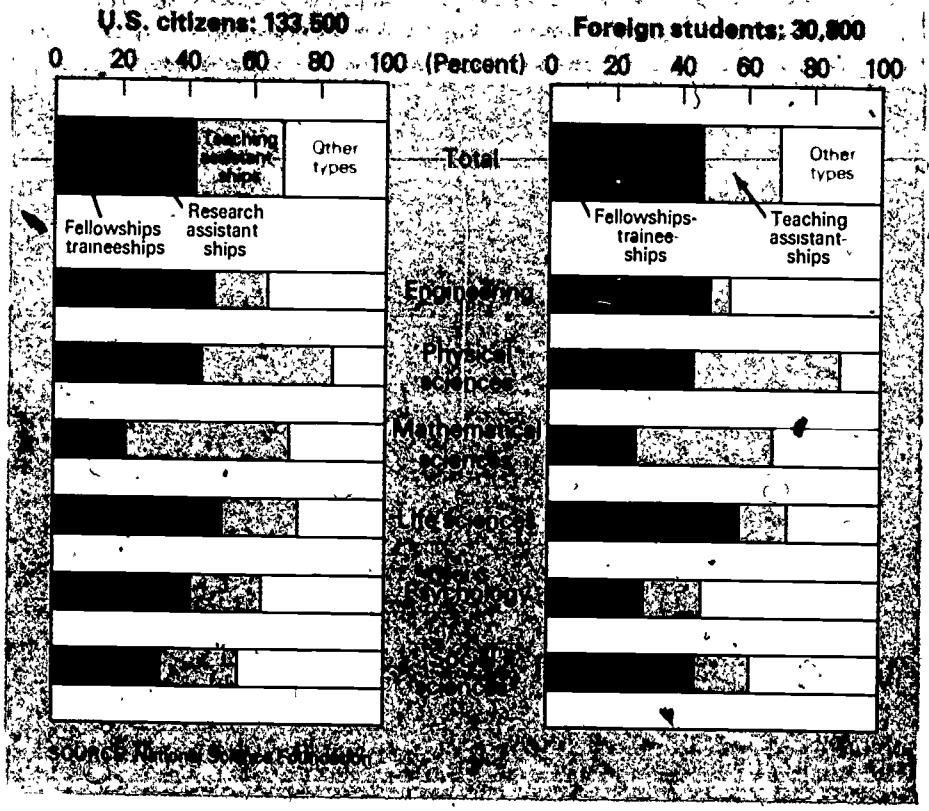
	Control of institution	
port	Public	Private
.....	100.0	100.0
.....	16.2	33.1
.....	23.0	19.2
	29 3	18 7
	31 5	29 1

Citizenship

Both U.S. and foreign students relied heavily upon their own resources for support of their graduate education. Of each group, 31 percent depended upon "other" mechanisms for support. For U.S. citizens, however, teaching assistantships ranked next in importance, while research assistantships ranked second for students from foreign countries. Since language ability and good classroom communication are important factors, relatively few foreign students are selected as teaching assistants.

For U.S. citizens relying upon "other" mechanisms, the social sciences enrolled the highest proportion of students. For foreign students dependent on this resource, the greatest proportion was in psychology. Teaching assistants with U.S. citizenship were concentrated in the mathematical sciences, whereas foreign teaching assistants were most heavily involved in the physical sciences.

Distribution of full-time graduate students, by type of major support, area of science, and citizenship: 1973



SOURCE: National Science Foundation

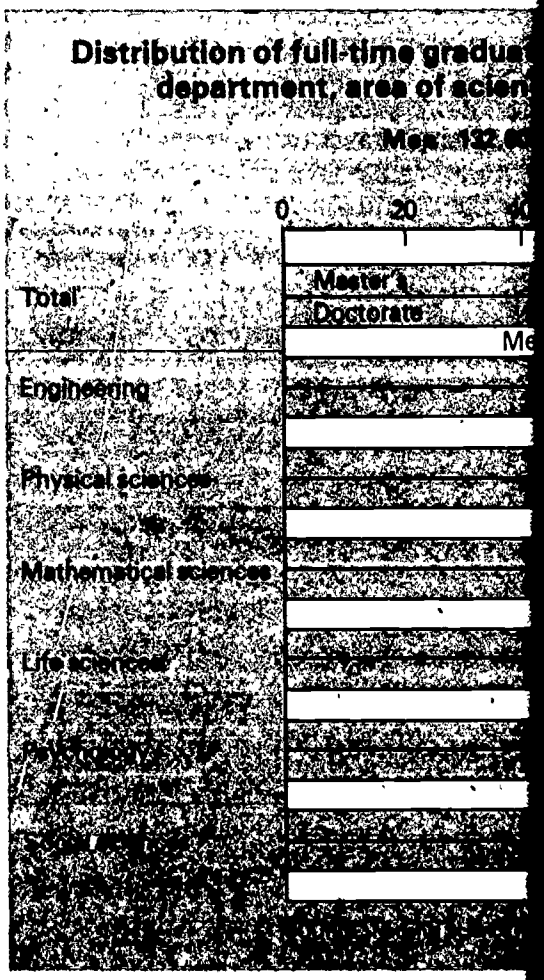
Sex of Graduate Students

Occupational outlooks differ markedly and are more favorable for women graduate students today than for their predecessors. A recent report based on a longitudinal survey of doctorate recipients analyzed changes in occupational outlooks as they influence attitudes and aspirations of female graduate students. The study found that employment opportunities are becoming more favorable for women Ph.D.'s.[8] Consequently, recent trends show increasing rates of enrollment of women graduate science students, with more women being enrolled for graduate degrees in 1973 than ever before. Women graduate students represented 19 percent of the total number of full-time students in science and engineering in 1973, up slightly from their 18 percent share in 1972. A higher proportion of women were enrolled in master's departments than in doctorate departments, in every area of science. The largest proportion of women were enrolled in psychology, followed next by the social sciences, the smallest proportion was in engineering. As expected, the highest level of concentration of first-year male graduate students occurred in engineering, first-year female graduate students were concentrated in the life sciences.

[8] See John A. Centra, *Women, Men, and the Doctorate* (Princeton Educational Testing Service, 1974.)

Percent distribution of full-time graduate students, by sex, level of study, and area of science: 1973

Sex of student and level of study	Number	Percent distribution						
		Total	Engineering	Physical sciences	Mathematical sciences	Life sciences	Psychology	Social sciences
Total	164,318	100.0	19.3	17.3	7.8	25.0	9.0	21.6
Men	132,596	100.0	96.9	88.9	81.2	75.0	63.5	73.2
First year	44,312	100.0	29.5	15.2	7.7	22.3	5.6	19.7
Beyond first year	88,284	100.0	20.0	21.0	7.9	23.7	7.8	19.5
Women	31,722	100.0	3.1	11.1	18.8	25.0	36.5	26.8
First year	11,534	100.0	4.2	8.7	8.5	33.1	14.9	30.4
Beyond first year	20,188	100.0	2.4	10.7	7.0	31.8	18.3	29.7



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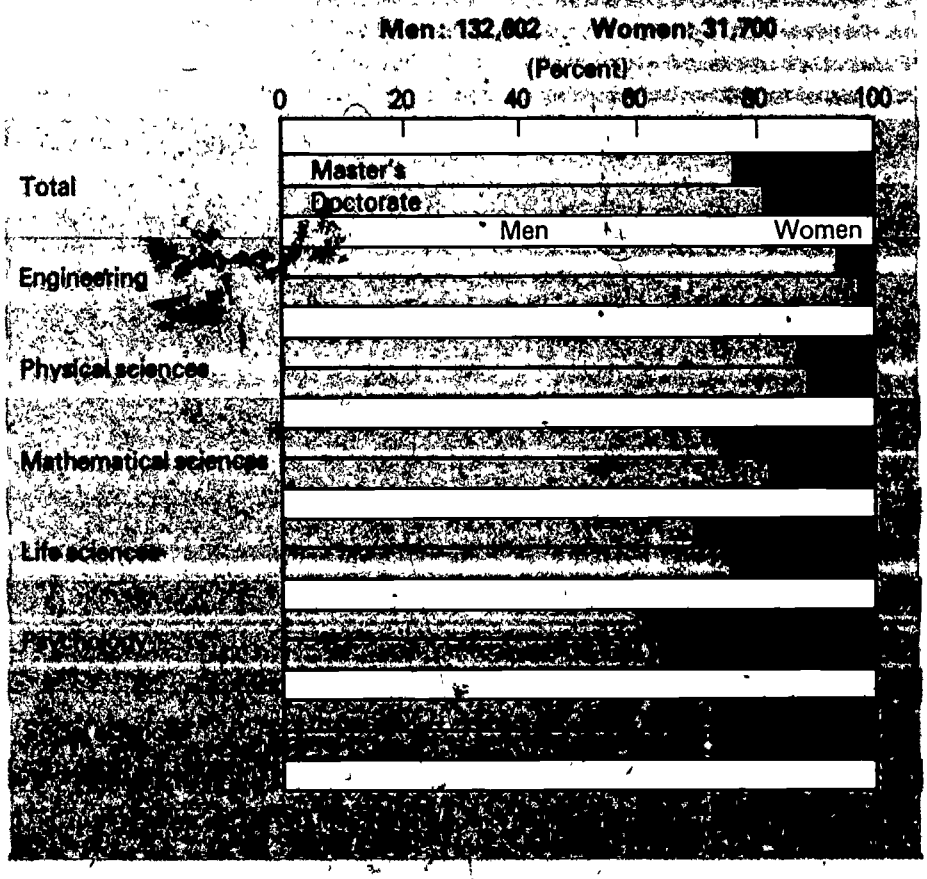
Doctorate (Princeton Educational Testing Service,

ull-time graduate students, and area of science: 1973

Percent distribution				
Physical sciences	Mathematical sciences	Life sciences	Psychology	Social sciences
17 3	7 8	25 0	9 0	21 6
88 9	81 2	75 0	63 5	73 2
15.2	7.7	22.3	5.6	19.7
21 0	7 9	23 7	7 8	19 5
11.1	18.8	25.0	36.5	26.8
8 7	8 5	33 1	14 9	30 4
10 7	7 0	31 8	18 3	29 7

Distribution of full-time graduate students, by level of department, area of science, and sex: 1973



A higher proportion of women than men received support from their own institutions and were self-supporting; Federal support went to a higher proportion of men than to women. Of all Federal agencies, NIH supported the largest share of women graduate students, 27 percent; and DOD the lowest, 3 percent.

Percent distribution of full-time graduate students, by source of major support and sex: 1973

Source of major support	Men	Women
Total	100.0	100.0
U.S. Government	27.2	22.6
Institutional support	41.3	43.1
Other outside support	8.9	6.3
Self-support	22.6	28.0

Percent distribution of supported full-time gradu by sex: 1973

Federal Agency	Number	T
U.S. Government, total	43,196	1
Atomic Energy Commission	1,562	1
Department of Defense	4,722	1
Health, Education, and Welfare, total	15,825	1
National Institutes of Health	10,197	1
Other HEW	5,628	1
National Aeronautics and Space Administration	1,244	1
National Science Foundation	9,682	1
All other agencies	10,161	1

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Percent distribution of federally supported full-time graduate students, by sex: 1973

Federal Agency	Number	Percent distribution		
		Total	Men	Women
U.S. Government, total	43,196	100.0	83.4	16.6
Atomic Energy Commission	1,562	100.0	93.4	6.6
Department of Defense	4,722	100.0	97.0	3.0
Health, Education, and Welfare, total ...	15,825	100.0	71.2	28.8
National Institutes of Health	10,197	100.0	73.4	26.6
Other HEW	5,628	100.0	67.3	32.7
National Aeronautics and Space Administration	1,244	100.0	96.1	3.9
National Science Foundation	9,682	100.0	88.3	11.7
All other agencies	10,161	100.0	88.2	11.8

GEOGRAPHIC DISTRIBUTION

Over one-third of the full-time enrollees in universities in the Pacific division received Federal support, the highest proportion in any division. The lowest percentage were enrolled in institutions in the West South Central division, where less than one-fifth were federally supported.

Distribution of full-time graduate students, by State and source of major support: 1973

Division and State	Total		Federal support		Non-Federal support	
	Number	Percent distribution	Number	Percent of total	Number	Percent of total
United States, total	164,318	100.0	43,196	26.3	121,122	73.7
New England	14,403	8.8	4,252	29.5	10,151	70.5
Maine	326	0.2	77	23.6	249	76.4
New Hampshire	575	0.3	145	25.2	430	74.8
Vermont	508	0.3	93	18.3	415	81.7
Massachusetts	9,017	5.5	2,905	32.2	6,112	67.8
Rhode Island	1,237	0.7	416	33.6	821	66.4
Connecticut	2,740	1.7	616	22.5	2,124	77.5
Middle Atlantic	26,690	16.2	6,278	23.5	20,412	76.5
New York	16,391	10.0	3,644	22.2	12,747	77.8
New Jersey	3,119	1.9	704	22.6	2,415	77.4
Pennsylvania	7,180	4.4	1,930	26.9	5,250	73.1
East North Central	34,448	21.0	8,591	24.9	25,857	75.1
Ohio	7,510	4.6	1,834	24.4	5,676	75.6
Indiana	5,088	3.1	1,225	24.1	3,863	75.9
Illinois	9,220	5.6	2,553	27.7	6,667	72.3
Michigan	7,985	4.9	1,457	18.2	6,528	81.8
Wisconsin	4,645	2.8	1,522	32.8	3,123	67.2
West North Central	13,243	8.1	3,630	27.4	9,613	72.6
Minnesota	3,403	2.1	1,103	32.4	2,300	67.6
Iowa	2,843	1.7	676	23.8	2,167	76.2
Missouri	2,975	1.8	793	26.7	2,182	73.3
North Dakota	368	0.2	100	27.2	268	72.8
South Dakota	496	0.3	212	42.7	284	57.3
Nebraska	799	0.5	144	18.0	655	82.0
Kansas	2,359	1.4	602	25.5	1,757	74.5
South Atlantic	19,235	11.7	5,106	26.5	14,129	73.5
Delaware	449	0.3	104	23.2	345	76.8
Maryland	2,792	1.7	821	29.4	1,971	70.6
District of Columbia	1,756	1.1	352	20.0	1,404	80.0
Virginia	2,277	1.4	538	23.6	1,739	76.4
West Virginia	770	0.5				
North Carolina	3,516	2.1				
South Carolina	1,188	0.7				
Georgia	2,622	1.6				
Florida	3,865	2.4				
East South Central	5,694	3.5				
Kentucky	1,141	0.7				
Tennessee	2,440	1.5				
Alabama	1,094	0.7				
Mississippi	1,019	0.6				
West South Central	12,703	7.7				
Arkansas	606	0.4				
Louisiana	1,909	1.2				
Oklahoma	2,174	1.3				
Texas	8,014	4.9				
Mountain	11,333	6.9				
Montana	587	0.4				
Idaho	584	0.4				
Wyoming	495	0.3				
Colorado	3,646	2.2				
New Mexico	1,044	0.6				
Arizona	2,732	1.7				
Utah	1,926	1.2				
Nevada	319	0.2				
Pacific	26,307	16.0				
Washington	2,944	1.8				
Oregon	2,328	1.4				
California	19,460	11.8				
Alaska	213	0.1				
Hawaii	1,362	0.8				
Outlying areas	262	0.2				

GEOGRAPHIC DISTRIBUTION.

Over one-third of the full-time enrollees in universities in the Pacific division received Federal support, the highest proportion in any division. The lowest percentage were enrolled in institutions in the West South Central division, where less than one-fifth were federally supported.

Distribution of full-time graduate students, by State and source of major support: 1973

	Federal support		Non-Federal support	
rcent ibution	Number	Percent of total	Number	Percent of total
00.0	43,196	26.3	121,122	73.7
8.8	4,252	29.5	10,151	70.5
0.2	77	23.6	249	76.4
0.3	145	25.2	430	74.8
0.3	93	18.3	415	81.7
5.5	2,905	32.2	6,112	67.8
0.7	416	33.6	821	66.4
1.7	616	22.5	2,124	77.5
16.2	6,278	23.5	20,412	76.5
10.0	3,644	22.2	12,747	77.8
1.9	704	22.6	2,415	77.4
4.4	1,930	26.9	5,250	73.1
21.0	8,591	24.9	25,857	75.1
4.6	1,834	24.4	5,676	75.6
3.1	1,225	24.1	3,863	75.9
5.6	2,553	27.7	6,667	72.3
4.9	1,457	18.2	6,528	81.8
2.8	1,522	32.8	3.123	67.2
8.1	3,630	27.4	9,613	72.6
2.1	1,103	32.4	2,300	67.6
1.7	676	23.8	2,167	76.2
1.8	793	26.7	2,182	73.3
0.2	100	27.2	268	72.8
0.3	212	42.7	284	57.3
0.5	144	18.0	655	820
1.4	602	25.5	1,757	74.5
11.7	5,106	26.5	14,129	73.5
0.3	104	23.2	345	76.8
1.7	821	29.4	1,971	70.6
1.1	352	20.0	1,404	80.0
1.4	538	23.6	1,739	76.4

Division and State	Total		Federal support		Non-Federal support	
	Number	Percent distribution	Number	Percent of total	Number	Percent total
West Virginia	770	0.5	179	23.2	591	76.8
North Carolina	3,516	2.1	1,215	34.6	2,301	65.4
South Carolina	1,188	0.7	201	16.9	987	83.1
Georgia	2,622	1.6	535	20.4	2,087	79.6
Florida	3,865	2.4	1,161	30.0	2,704	70.0
East South Central	5,694	3.5	1,259	22.1	4,435	77.9
Kentucky	1,141	0.7	210	18.4	931	81.6
Tennessee	2,440	1.5	587	24.1	1,853	75.9
Alabama	1,094	0.7	224	20.5	870	79.5
Mississippi	1,019	0.6	238	23.4	781	76.6
West South Central	12,703	7.7	2,371	18.7	10,332	81.3
Arkansas	606	0.4	123	20.3	483	79.7
Louisiana	1,909	1.2	360	18.9	1,549	81.1
Oklahoma	2,174	1.3	401	18.4	1,773	81.6
Texas	8,014	4.9	1,487	18.6	6,527	81.4
Mountain	11,333	6.9	2,901	25.6	8,432	74.4
Montana	587	0.4	132	22.5	455	77.5
Idaho	584	0.4	110	18.8	474	81.2
Wyoming	495	0.3	122	24.6	373	75.4
Colorado	3,646	2.2	1,138	31.2	2,508	68.8
New Mexico	1,044	0.6	246	23.6	798	76.4
Arizona	2,732	1.7	521	19.1	2,211	80.9
Utah	1,926	1.2	583	30.3	1,343	69.7
Nevada	319	0.2	49	15.4	270	84.6
Pacific	26,307	16.0	8,767	33.3	17,540	66.7
Washington	2,944	1.8	946	32.1	1,998	67.9
Oregon	2,328	1.4	583	25.0	1,745	75.0
California	19,460	11.8	6,678	34.3	12,782	65.7
Alaska	213	0.1	66	31.0	147	69.0
Hawaii	1,362	0.8	494	36.3	868	63.7
Outlying areas	262	0.2	41	15.6	221	84.4

Graduate Departments in Medical Schools

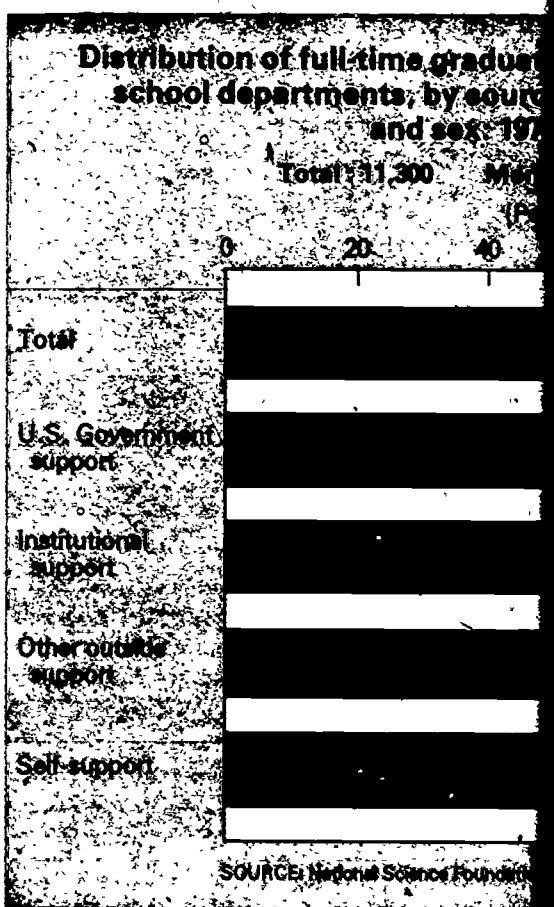
Full-time enrollment in graduate departments affiliated with medical schools accounted for only 7 percent of all full-time enrollment in 1973. Characteristics of the 11,300 students in this category were examined for comparative purposes with graduate students in all other science departments.

Over one-half of all Ph.D. candidates enrolled in medical schools were receiving a fellowship or traineeship. Less than one-fifth of enrollees in all other graduate departments received such support. The Federal Government was the prime source of support of these students, whereas all other graduate students received most of their support from the institutions themselves, along with State and local governments. A substantially higher percentage of women were enrolled in graduate programs in medical schools than in all other graduate programs, and a significantly lower percentage of foreign students were so enrolled.

Percent distribution of full-time graduate students in medical school departments, as compared with all other graduate departments: 1973

Item	Medical school departments	All other graduate departments
Total number	11,289	153,029
	Percent distribution	
By type:		
Fellowships-traineeships	51.5	18.5
Research assistantships	12.4	22.7
Teaching assistantships	11.2	27.5
Other types of support	24.9	31.3
By source:		
U.S. Government support	46.2	24.8
Institutional support	26.6	42.8
Other outside support	6.6	8.5
Self-support	20.5	23.9
By sex:		
Men	71.4	81.4
Women	28.6	18.6
By citizenship:		
United States	89.0	80.7
Foreign	11.0	19.3

Within each class of major outside financia
over one-fourth of the available funds, but
women constituted one-third of the total.



s in Medical Schools

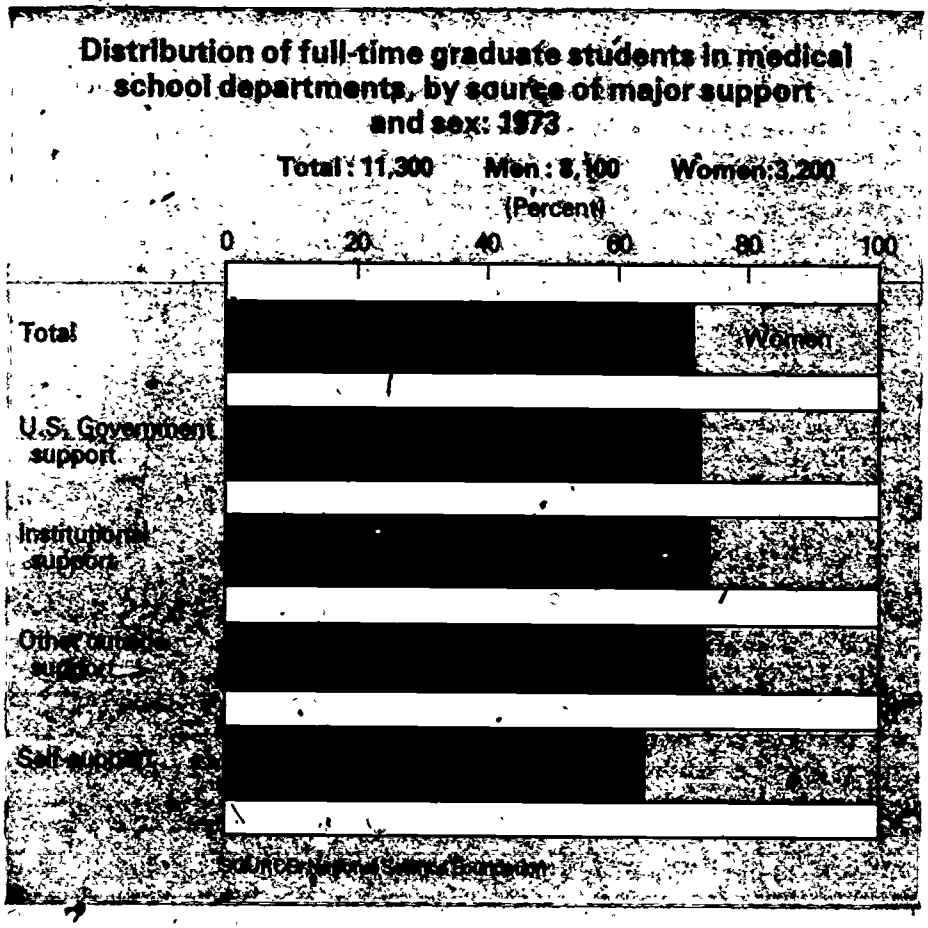
duate departments affiliated with medical schools all full-time enrollment in 1973. Characteristics of gory were examined for comparative purposes her science departments.

candidates enrolled in medical schools were eship. Less than one-fifth of enrollees in all other such support. The Federal Government was the se students, whereas all other graduate students rom the institutions themselves, along with State stantially higher percentage of women were in medical schools than in all other graduate ower percentage of foreign students were so

ribution of full-time graduate medical school departments, red with all other graduate departments: 1973

	Medical school departments	All other graduate departments
	11 289	153 029
	Percent distribution	
ships	51.5	18.5
ips	1.4	.6
ips	11.2	2.5
port	24.9	43.3
upport	46.1	24.8
t	26.6	4.8
ort	7.5	6.5
	20.5	23.9
	71.4	87.4
	28.6	12.6
	99.0	98.7
	11.0	14.3

Within each class of major outside financial support, women received a little over one-fourth of the available funds, but within the self-supported group, women constituted one-third of the total.



Section 3. Postdoctorals

TRENDS IN POSTDOCTORAL UTILIZATION IN SCIENCE AND ENGINEERING

For this study, the term "postdoctoral" or "research associate" refers to those appointees who devote full time to research activities or study for a temporary, but specific, time period. An element of training exists in these appointments, and some postdoctorals are involved in the teaching of graduate students through seminars or lectures, although this aspect of their employment is not generally stressed.

The number of postdoctoral appointees in the matched set of departments in the period 1972 to 1973 amounted to only 64 percent of the 16,400 postdoctorals reported in 1973. This undercoverage occurred primarily in the life sciences, as clinical-medical departments were not fully represented in the 1972 survey; i.e., only 658 departments in medical schools granting science Ph.D.'s responded. In 1973 data were received from 2,452 departments in medical schools. Thus, as expansion of the survey coverage continues, trend information will be more representative of the entire postdoctoral population in future reports. Since nearly one-half of the postdoctorals were accounted for by the medical school respondents in 1973, the following trend analysis related primarily to nonmedical departments. Also, the number of postdoctorals utilized by master's departments in 1973 was less than 1 percent of the total, so they have been combined with those in doctorate departments for this analysis.

Percent change in the number of postdoctorals in matched departments, by area of science and control of institution: 1972 to 1973

Area of science	Total	Public	Private
Total, all areas	-6.1	-7.6	-4.0
Engineering	-3.2	-3.5	-2.9
Physical sciences	-3.7	-6.7	.7
Mathematical sciences	-34.6	-56.9	-8.9
Life sciences[1]	-5.5	-5.2	-5.8
Psychology	-39.7	-33.1	-45.2
Social sciences	-3.9	-14.1	14.4

[1] See explanation in text regarding undercoverage in medical departments.

NOTE: Based on 4,112 graduate departments reporting in 1972 and 1973.

For the first time in this data series, the number of postdoctorals in matched departments has shown a downturn that is reflected in every major area of science. Since many postdoctoral appointments are considered to be temporary, short-term employment for recent Ph.D. graduates, this reduction in numbers may reflect more favorable job opportunities outside of the academic sector. Both public and private institutions lost some of their postdoctoral "pool" in 1973, with public institutions losing these appointees at almost twice the rate as private ones.

Comparison

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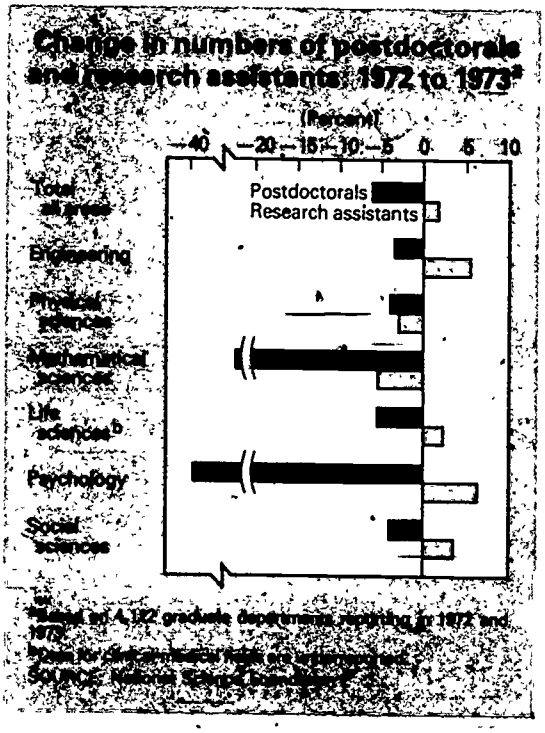
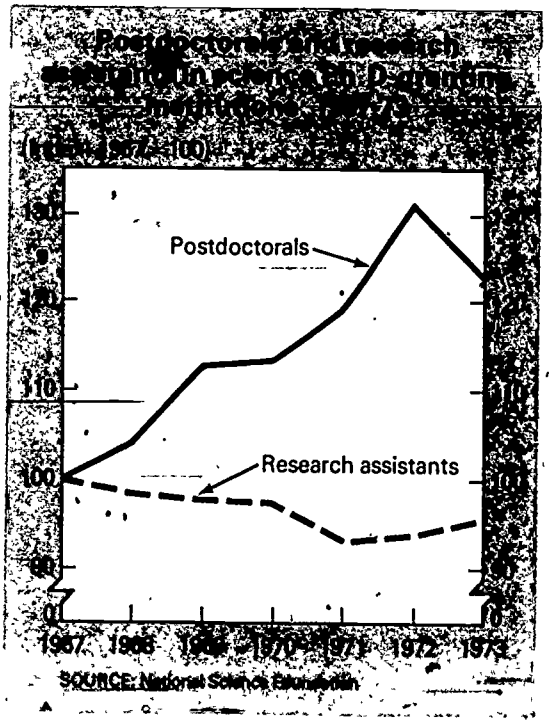
Comparison with Research Assistantship Utilization

While the number of postdoctorals employed in institutions of higher education dropped by 6 percent from 1972 to 1973, the total number of graduate students holding research assistantships increased by 2 percent, heavily influenced by the increase in support from the institutions themselves. This shift in the utilization of manpower resources for the performance of research reflects a reversal of the long-term trend noted in previous studies. In the period 1967 through 1972, when Federal R&D obligations rose 15 percent in constant-dollar terms, the number of research assistants supported on Federal projects dropped 11 percent. By 1972 the total number of postdoctorals, of whom over two-thirds were employed on Federal projects in 1973, rose 31 percent above the 1967 level. In the most recent 1972-73 period, however, Federal R&D obligations to universities and colleges were reduced by $41 million in constant-dollar terms, or by 3 percent, and postdoctorals subsequently were lower by 6 percent.



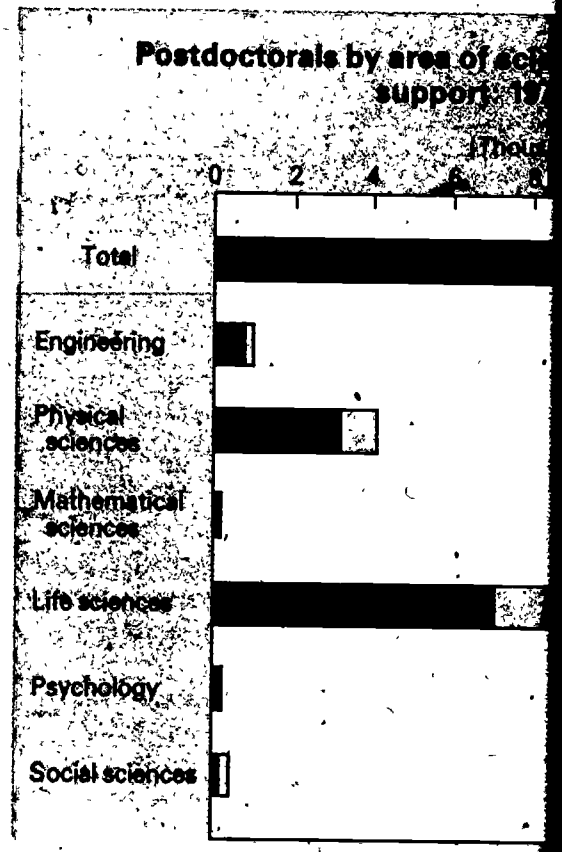


SOURCE: National Science Foundation

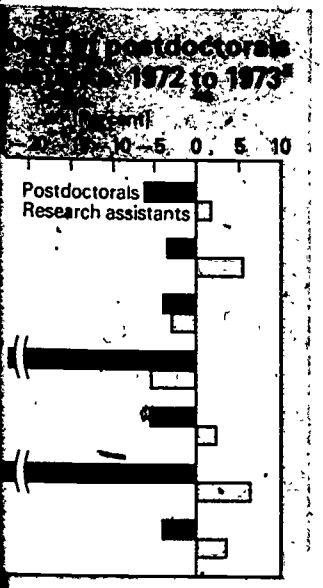
GENERAL CHARACTERISTICS, FA

Of the 16,400 postdoctorals reported departments in Ph.D.-granting institutions, Federal research projects.[9] The highest per postdoctorals occurred in the physical sciences the social sciences—41 percent. More postdoc sciences—10,500—than in any other area; the physical sciences—4,100. Medical schools empl all postdoctorals; of these, or two-thirds support. More postdoctorals were engaged by than by private ones, but in private institu percent—were supported on Federal projects

[9] For further details on postdoctorals, refer to appendi this report.



SOURCE: National Science Foundation



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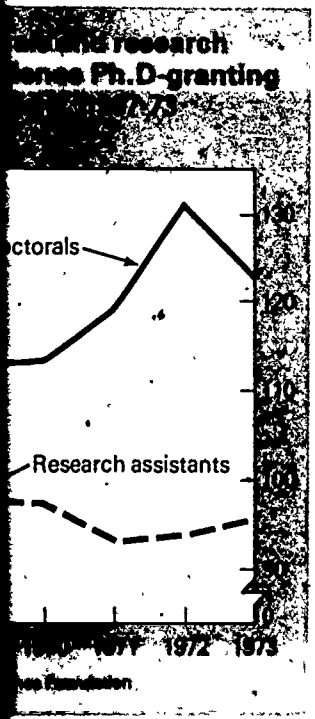

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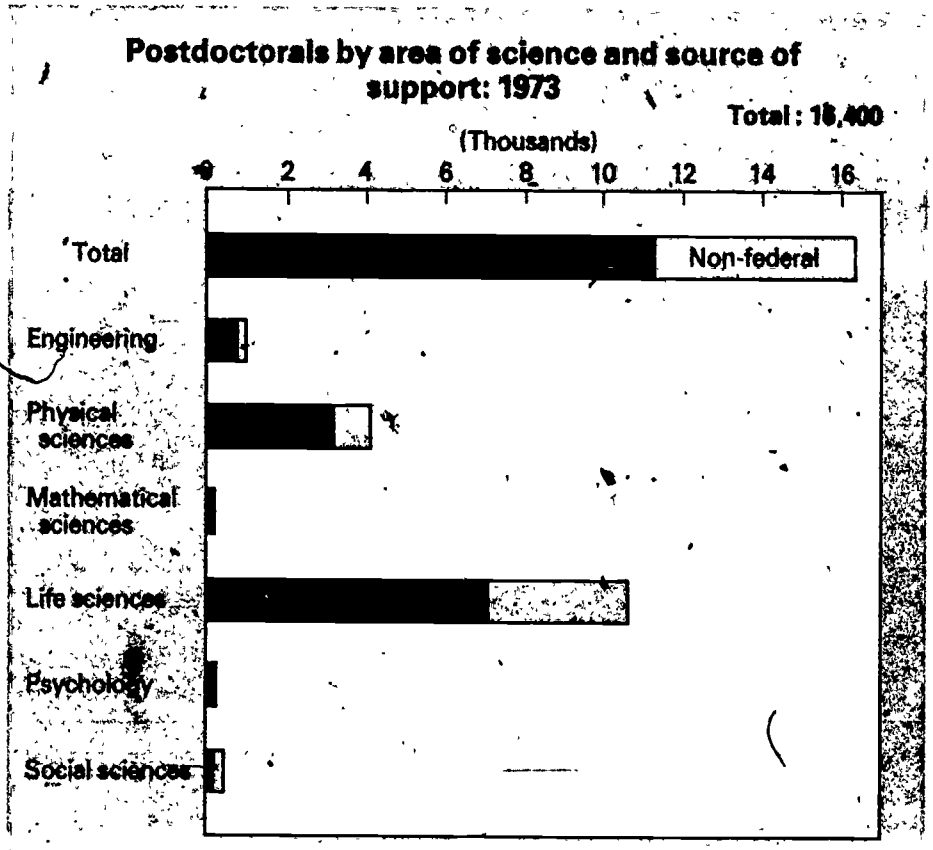
GENERAL CHARACTERISTICS, FALL 1973

Of the 16,400 postdoctorals reported in 1973 by graduate science departments in Ph.D.-granting institutions, 69 percent were supported on Federal research projects.[9] The highest percentage of federally supported postdoctorals occurred in the physical sciences—77 percent—and the lowest in the social sciences—41 percent. More postdoctorals were employed in the life sciences—10,500—than in any other area; the next highest number were in the physical sciences—4,100. Medical schools employed nearly one-half —7,900—of all postdoctorals; 5,200 of these, or two-thirds, received some form of Federal support. More postdoctorals were engaged by public institutions—55 percent—than by private ones, but in private institutions, a higher percentage—71 percent—were supported on Federal projects than in public ones—67 percent.

[9] For further details on postdoctorals, refer to appendix III (page 80) and in appendix IV tables in this report.

Postdoctorals by area of science and source of support: 1973



SOURCE: National Science Foundation

APPENDIXES

I. Technical Notes

General Methodology
Assessment of Coverage, Consistency of Reporting, and Methodology of 1973 Survey: the Reliability and Validity Survey

II. Classification of Institutions in Survey

III. Statistical Tables

IV. Instructions and Consolidated Departmental Data Sheets

Note

The detailed statistical tables for this volume have been published separately under one cover. A complete listing of the tables appears on p. 51. Detailed statistical tables may be obtained gratis from the National Science Foundation, Washington, D.C. 20550.

APPENDIX I
Technical Notes

General Metho

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1971	
1972	
1973	

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APPENDIX I
Technical Notes

General Methodology

The institutional response rate in this survey was 100 percent; that is, every institution that was known to offer a science-doctorate program returned completed questionnaires from its graduate science and engineering departments. In 1973, as the result of NIH's special interest in the biomedical and clinical departments, survey coverage was expanded. The 339 medical and graduate school deans surveyed in 1973 returned 6,559 Departmental Data Sheets representing 876 master's and 5,683 doctorate departments.

The table I-1 provides the number of institutions and departments by level, in each year for which data are shown in this report. As stated earlier, in the Introduction, there were three populations covered in the data series: (1) 1967-71—based on data from application forms submitted to NSF's Graduate Traineeship Program; (2) 1972—a survey of graduate departments in institutions awarding the Ph.D. degree in the sciences and engineering; (3) 1973—expanded coverage to include biomedical and clinical departments.

Table I-1. Number of participating institutions and departments in NSF data collection years: 1967-73

Year[1]	Number of institutions	Number of departments		
		Total	Master's	Doctorate
1967	209	3,016	436	2,580
1968	219	3,190	454	2,736
1969	224	3,354	460	2,894
1970	227	3,544	473	3,071
1971	224	3,397	407	2,990
1972	302	4,637	826	3,811
1973	339	6,559	876	5,683

[1] Years 1967-71 represent NSF's Graduate Traineeship Program; 1972 and 1973 were survey years.

Assessment of Coverage, Consistency of Reporting, and Methodology of the 1973 Survey: the Reliability and Validity Survey

As part of the continuing effort by NSF and NIH to improve reliability and validity (R&V) of survey data, in Spring 1974 a contractor was engaged to conduct a field study of a sample of 30 graduate institutions, including 10 medical schools to determine the accuracy and completeness of data reported on the survey questionnaires. The R&V study was also designed to measure the sources and magnitude of response problems.

Three distinct quality checks of the 1973 survey data were undertaken. (1) an assessment of institutional and departmental records; (2) site visits to 120 science and engineering departments within 30 institutions; (3) a telephone survey of a sample of graduate students and postdoctorals to obtain first-hand data for comparison with departmental records.

SUMMARY OF FINDINGS

Results of the R&V study are presented here in terms of the major purposes of the effort.

A. Coverage

The survey mailing lists of institutions awarding the Ph.D. degree in science and engineering were taken in 1972 from the records maintained by the Fellowships Office of the National Research Council, updated in 1973 by adding institutions reporting Ph.D. as the highest offering in the 1973 Survey of Scientific Activities of Institutions of Higher Education, plus institutions listed in the 1973-74 Association of American Medical Colleges *Directory of American Medical Education*. As part of the quality check of the 1973 survey these sources of institutional coverage were compared with the most current version of each of the following:

1. *American Council on Education*, list of graduate schools granting science Ph.D.'s, updated on an ongoing basis for ACE research projects.
2. *The Campus Resources of Higher Education in the United States of America*, November 1973, published by the Academy for Educational Development, Inc., Washington, D.C.
3. *Higher Education: Education Directory, 1973-74*, published annually by the National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare.

The following 14 schools with Ph.D. programs in the sciences and engineering were identified that had not been surveyed in 1972 or 1973:

Names of Eligible Institutions	*Science Ph.D. Offered*
1. University of Alabama in Huntsville, Ala.	Physics, mechanical engineering, electrical engineering
2. Cleveland State University, Cleveland, Ohio	Chemistry
3. East Texas State University, Commerce, Tex.	Psychology
4. Lamar University, Beaumont, Tex.	Psychology
5. University of Maryland, Baltimore County, Md*.	Mathematics, biological sciences
6. University of Missouri in St. Louis, Mo.**	Chemistry, psychology
7. New England Institute, Ridgefield, Conn.	Interdisciplinary science
8. Northeast Louisiana University, Monroe, La.	Pharmacy
9. Northern Arizona University, Flagstaff, Ariz.	Biology
10. Oakland University, Rochester, Mich.	Systems engineering
11. Old Dominion University, Norfolk, Va.	Civil engineering, electrical engineering, mechanics, thermal engineering
12. Rand Graduate Institute, Santa Monica, Calif.	Policy studies
13. Rosemead Graduate School of Psychology, Rosemead, Calif.	Counseling psychology
14. Tennessee Technological University, Cookeville, Tenn.	Engineering

* Branch campus of the University of Maryland System.
** Branch campus of the University of Missouri System.

Departmental coverage within all surveyed institutions (exclusive of the 14 that had not been surveyed) was assessed by comparing the eligible departments listed in the 1973-74 graduate school catalogs of each institution with their departmental responses to the 1973 survey. Results of this effort were tabulated and are shown in table I-2.

The difference of 1,317 departments (i.e., those listed in catalogs, but not responding in the survey) represents approximately 20 percent of the survey universe. In terms of the number of graduate students in the sciences and engineering enrolled in these missing departments, the 20 percent is undoubtedly a poor measure and seriously inflated. College catalogs tend to overstate program offerings and the missed departments are more likely to be smaller, newer, and less visible.

Limitations of the catalog search as a means for establishing such a universe were numerous, and the difficulties are summarized as follows:

Table I-2. Compa universe with t

Area of science
Total .....
Engineering .....
Physical sciences ..
Mathematical sciences .....
Life sciences .....
Agriculture .....
Basic medical sciences .....
Other biosciences
Health sciences ..
Other health related .....
Psychology .....
Social sciences ....
All other sciences, n.e.c. ..

[1] The universe has in the graduate schoo *Medical Education*, 1

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2. Several institutio structure, comp universe. In gene among the insti task. And, as mor education, such arbitrary decisio programs.

5.	University of Maryland, Baltimore County, Md*.	Mathematics, biological sciences
6.	University of Missouri in St. Louis, Mo.**	Chemistry, psychology
7.	New England Institute, Ridgefield, Conn.	Interdisciplinary science
8.	Northeast Louisiana University, Monroe, La.	Pharmacy
9.	Northern Arizona University, Flagstaff, Ariz.	Biology
10.	Oakland University, Rochester, Mich.	Systems engineering
11.	Old Dominion University, Norfolk, Va.	Civil engineering, electrical engineering, mechanics, thermal engineering
12.	Rand Graduate Institute, Santa Monica, Calif.	Policy studies
13.	Rosemead Graduate School of Psychology, Rosemead, Calif.	Counseling psychology
14.	Tennessee Technological University, Cookeville, Tenn.	Engineering

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** Branch campus of the University of Missouri System.

Departmental coverage within all surveyed institutions (exclusive of the 14 that had not been surveyed) was assessed by comparing the eligible departments listed in the 1973-74 graduate school catalogs of each institution with their departmental responses to the 1973 survey. Results of this effort were tabulated and are shown in table I-2.

The difference of 1,317 departments (i.e., those listed in catalogs, but not responding in the survey) represents approximately 20 percent of the survey universe. In terms of the number of graduate students in the sciences and engineering enrolled in these missing departments, the 20 percent is undoubtedly a poor measure and seriously inflated. College catalogs tend to overstate program offerings and the missed departments are more likely to be smaller, newer, and less visible.

Limitations of the catalog search as a means for establishing such a universe were numerous, and the difficulties are summarized as follows:

Table I-2. Comparison of graduate departments in the universe with those responding to the 1973 survey

Area of science	Number of graduate departments in universe[1]	Number of graduate departments responding to the survey	Number of responses as percent of universe
Total	7,876	6,559	83.3
Engineering	1,044	926	88.7
Physical sciences	768	713	92.8
Mathematical sciences	374	339	90.6
Life sciences	4,130	3,422	82.9
Agriculture	326	270	82.8
Basic medical sciences	965	813	84.2
Other biosciences	653	550	84.2
Health sciences	1,937	1,649	85.1
Other health related	249	140	56.2
Psychology	279	215	77.1
Social sciences	1,233	928	75.3
All other sciences, n.e.c.	48	16	33.3

[1] The universe has two components: The departments listed in the graduate school catalogs and in the *Directory of American Medical Education, 1973-74.*

1. The program and degree framework of a university do not always lend themselves to a breakdown by departments. The catalog reviewers had considerable difficulty in differentiating a department from what was termed a "Major", a "Program", or a "Specialization", or from what was an interdisciplinary department, committee, group, or area. This was a crucial problem, since the department was to be the reporting unit in the GSSS survey, and the catalog reviewers were not always able to tell whether a unit should be included in the survey universe.
2. Several institutions did not conform to the typical academic structure, complicating the procedure for compiling a universe. In general, the variations in types of organization among the institutions made the catalog search a difficult task. And, as more innovations are introduced into graduate education, such a task is likely to result in somewhat arbitrary decisions being made in order to categorize all programs.

B. Field enumeration check on departmental records

How accurate are data supplied to NSF from departmental records on graduate science enrollment and sources of support of students and postdoctorals? To answer this question, the contractor sent teams of enumerators into the field to examine records maintained at 120 graduate departments at 30 institutions selected at random. A replication of departmental responses was done without reference to the original response in order not to bias the study. At the end of the field study, the sample was weighted to produce national estimates which were compared with the actual survey results to produce identification and measurement of response variance.[1]

Results of the field enumeration check on departmental records.

The overall 1973 survey results showing total graduate enrollment in science were found to be relatively accurate (table I-3). The field enumeration study produced an estimate of -1.2 percent (i.e., the published statistics understated by 1.2 percent the replicated data) when data from the quality check sample were weighted to national estimates.

As would be expected, since a student's *major* source of support may not have been known to the department chairmen or to the field enumerators, there was more variation in the source of support data. For instance, graduate research assistantship data are estimated to be understated by about 4 percent. Published statistics on holders of fellowships-traineeships appear to be overstated in the order of about 8 percent.

Also, the data reported on sources of major support indicated close agreement, with U.S. Government sources in total being overstated by less than 1 percent and non-U.S. Government sources underreported by only 2 percent (table I-4). Differences in reporting of individual sources of support were considerably larger. In general, the categories accounting for the largest numbers of students had the greatest consistency between department and field staff reports.

Information on the differences observed in the treatment of postdoctorals indicates that records available on these appointees at the department level are frequently not in a form required to respond to survey items, as the results show an overstatement of 7 percent of the actual total observed by the field teams (table I-5). Also, some confusion was encountered in classifying M.D.'s who were studying for a Ph.D. Here again, there are probably definitional problems that result in chairmen being unable to report accurately on the number and source of support of postdoctorals assigned to their departments.

[1] The 30 institutions' sample size were necessarily so small that only gross differences can be considered to be statistically significant.

Table I-3. Percentage difference between 1973 survey results and weighted full-time enrollment obtained by field enumerators on types of major support

Type of major support	1973 GSSS survey results	Percentage difference
Total, all types	164,318	-1.2
Fellowships and traineeships	34,135	7.6
Graduate research assistantships	36,111	-3.9
Graduate teaching assistantships	43,395	2.0
Other types of support	50,677	-9.0

Table I-4. Percentage difference between 1973 survey results and weighted full-time enrollment obtained by field enumerators on sources of major support

Sources of major support	1973 GSSS survey results	Percentage difference
Total, all sources	164,318	-1.2
U.S. Government sources	43,196	.8
NSF	9,682	-1.4
NIH	10,197	-3.0
Other	23,317	3.0
Non-U.S. Government sources	121,122	-2.0
Institutional support	68,448	.7
Self, loans, and family	38,845	-2.3
Other	13,779	-13.9

Table I-5. Percentage difference between 1973 survey results and weighted data obtained by field enumerators on postdoctorals

Sources of support	1973 GSSS survey results	Percentage difference
Total, all postdoctorals	16,358	7.0
U.S. Government sources	11,286	7.7
Fellowships and traineeships	4,595	13.5
Research associates	6,691	4.5
Non-U.S. Government sources	5,072	4.6

Limitations of the fi departmental recor

Problems encou obtained from a sam responses submitte determination of a characteristics. Amo the following:

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2. Of critical imp assumption that could be match in particular ite the case and a reported by characteristics o were difficult.
3. Finally, the sam were so small th to be statistically

C. Student and pos

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Research associates	6,691	4.5
Non-U.S. Government sources	5,072	4.6

Limitations of the field enumeration check on departmental records

Problems encountered in attempting to reconcile data obtained from a sample of departmental records with the survey responses submitted by these departments prevented a determination of a data set reflecting "true" graduate student characteristics. Among the major problems encountered were the following:

1. The field enumeration check of the 1973 graduate student data was the first one of its kind planned by NSF and the initial one conducted by the contractor. As a result, serious problems were encountered in connection with the schedule and level of effort proposed by the contractor. The schedule called for two-day visits to each campus. This included replication of questionnaries at four graduate departments, interviews with institutional officials, and telephone interviews with a sample of graduate students and postdoctorals. This two-day time limit was much too short for adequate coverage and undoubtedly influenced the quality of the findings produced by the field enumeration study. As a result of the tight schedule, the replicated questionnaire data produced by the contractor in the field enumeration was not always verified with institutional officials who supplied the original statistics as planned.
2. Of critical importance to the quality check was the assumption that source records examined by enumerators could be matched with actual counts of students reported in particular items on the original forms. This was often not the case and attempts to reconcile the student counts reported by the departments with the student characteristics data obtained by the field representatives were difficult.
3. Finally, the sample sizes for institutions and departments were so small that only gross differences can be considered to be statistically significant.

C. Student and postdoctoral interviews.

So that accuracy of departmental records could be assessed, or at least their consistency with student perceptions, a random sample was selected of graduate students and postdoctorals.[2] These students and postdoctorals were interviewed to obtain information on the characteristics of their graduate studies, including their major source of support. The field enumerators attempted to contact each of the students and postdoctorals by telephone in order to obtain data on various characteristics of their graduate studies to compare with the data that were extracted from the departmental records.

Results of the student and postdoctoral interviews.

In general, data from the student and postdoctoral interviews show a close correspondence with the results of the field

[2] For detailed information on sampling methodology, see p. 29.

enumeration counts. For example, there was zero net difference between the student interview data and the field enumeration count on the level of study, i.e., first year and beyond first (table I-6). The zero net difference indicates an offsetting number of positive and negative counts since the confidence interval at the 95-percent level is relatively large (-3.90 to 3.90).

The student interviews produced an estimate of the percentage of males in the sample that exceeds that obtained from the departmental files by only one-half of 1 percent and is probably due to recording errors. The student interview estimate of the percent of U.S. citizens was less than the estimate derived from departmental records by only 1.5 percent. The size of the confidence interval is approximately the same width as the sex estimates, indicating a close correspondence between the interviews and departmental records.

Sources and types of support showed the highest levels of variation, confirming the general findings from the overall reliability and validity study. The "major" source of support is not always known at either the department level or by individual students since these funds may be drawn from a pool representing multiple sources. For example, departmental personnel may be aware of sources that are utilized by a given student if the funds are channeled through the department; however they may not be aware of other sources used, such as student loans or family support. Because of this uncertainty, departmental officials may tend to overreport students in the "other" category when they actually receive major sources of income from one of the specific categories listed on the questionnaire.

Similar data comparisons resulted from the interviews of postdoctorals. When related to the departmental records, the greatest variances were shown for sources of support (table I-7).

Limitations of the student and postdoctoral interviews.

As in the case of the quality check of departmental records, the student interview data are subject to serious limitations, as follows:

1. Student perceptions of the major source of support for their graduate studies may differ from actuality, and the departmental records may be a more accurate source of information in some cases. For example, U.S. Government funds may lose their identity to the student as they flow through various levels such as States and institutions. The student may erroneously perceive that the most immediate source of support, from which his paycheck may come, is the actual source. The student may be unaware that the institution receives his support from bulk grants under large Federal programs, for example.
2. Of the 450 targeted student interviews, 397 were actually conducted. The tabulated data thus may be subject to statistical bias because of nonresponse caused by the inability to locate students or refusal to cooperate even

Table I-6. Comparison of student characteristics according to interviews and department records, with 95 percent confidence interval on net difference: 1973

Student characteristics	Percent distribution according to: Student interviews	Department records	95 percent confidence interval on net difference
Total	100.0	100.0	
Citizenship:			
U.S.	82.7	84.2	-3.37 to .31
Foreign	17.3	15.8	- .31 to 3.37
Level of study:			
First year	32.6	32.6	-3.90 to 3.90
Beyond first	67.4	67.4	-3.90 to 3.90
Type of major support:			
Fellowships or traineeships	32.8	30.9	-1.87 to 5.73
Research assistantships	30.2	27.3	- .96 to 6.75
Teaching assistantships	28.6	31.2	-5.79 to .64
Other types of support	8.4	10.7	-5.88 to 1.39
Source of major support:			
U.S. Government	26.4	31.6	-9.52 to -.78
Non-U.S. Government	73.6	68.4	9.52 to .78
Sex:			
Male	82.1	81.6	-1.54 to 2.05
Female	17.9	18.4	-2.05 to 1.54

Table I-7. Comparison of postdoctoral characteristics according to interviews and department records, with 95 percent confidence interval on net difference: 1973

Characteristic	Percent distribution according to: Postdoctoral interviews	Department records	95 percent confidence interval on net difference
Received doctoral:			
Since 1969	75.8	73.5	-2.6 to 7.3
In 1969 or before	24.2	26.5	-7.3 to 2.6
Source of support:			
U.S. sources	71.6	64.8	.3 to 13.2
Non-U.S. sources	28.4	35.2	-13.2 to -.3

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Number of first-year
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Number of male stud

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Beyond first	67.4	67.4	-3.90 to 3.90
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In 1969 or before	24.2	26.5	-7.3 to 2.6
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U.S. sources	71.6	64.8	.3 to 13.2
Non-U.S. sources	28.4	35.2	-13.2 to -.3

though adjustments were made to sample weights to account for the nonresponse.

3. Since the sample was very small when compared to national totals, the weighted sample data are subject to sampling errors and should be interpreted only in gross terms.

To elaborate on limitation 3 above, statistics on the characteristics of students in this section are estimates based on interviews with students chosen by a stratified random sample from the survey universe.

An estimate of the sampling error has been computed and table I-8 shows the sampling error for various data items listed on the stub, at one standard error.[3] To illustrate, the two estimates derived from the weighted sample estimates for "Total Full-time Graduate Students" produced a difference of 1,867 students. The estimated standard error at the two-thirds confidence interval is estimated at 3,791 students; i.e., the actual difference could range from -1,934 to 5,658 students at one standard error. The estimated standard errors of the differences of each student characteristic are large because of the relatively small number of sample units. In all cases, except the estimated number of postdoctorals, the standard errors approximately equal or exceed the differences, indicating a significant level of sampling error.

[3] For an explanation of how this statistic is derived see Morris H. Hansen, William N. Harwity, and William G. Marlow, *Sample Survey Methods and Theory*, Vol. 1, 1st ed. (New York: John Wiley and Sons, Inc., 1953), p. 228.

Table I-8. Estimates of sampling error of observed differences for selected data cells: 1973

Item	Differences (R&V minus GSSS estimates)	Estimated standard errors of the differences (at 2/3 confidence interval)
Total full-time graduate students	1,867	3,791
Number receiving fellowships and traineeships	-2,084	2,044
Number receiving support from U.S. Government	-314	1,222
Number of first-year students	795	2,739
Number of male students	1,748	3,225
Number of postdoctorals	-1,394	635

SAMPLE SELECTION METHODOLOGY FOR THE RELIABILITY AND VALIDITY CHECK

Sample selection of 30 institutions

The contractor designed and selected a stratified random sample of 30 institutions from the 235 graduate and 104 medical schools surveyed in 1973. Since the medical schools constituted nearly one-third of the total, 10 were selected for the study. Within each of the two sets of institutions, schools were selected systematically with probabilities proportional to the estimated number of graduate students in science departments plus the number of postdoctoral appointees in these departments in 1973. Since all of the 1973 department responses were not available early enough for use as the measures of size and others were not edited in time for the sample selection, 1972 enrollment data were used for this purpose. For graduate institutions, these data were taken from the 1972 survey, for medical schools, data were provided by NIH from other sources. (The 1972 survey enrollments could not be used for medical schools since most of the medical schools did not report enrollments separately in 1972).

If M_i represented the estimated graduate plus postdoctoral enrollment referred to above for the i^{th} medical school, its probability of selection for the R&V Study was $10M_i/M_m$, where M_m (which equals 18,639) was the total of the M_i values for all 104 medical schools. Similarly, the selection probability for the i^{th} graduate institution was $20 M_i/M_d$, where M_d (which equals 159,109) was the total of the M_i values for the 235 graduate institutions.

The selection of the 10 medical schools was made with probability proportional to size. The schools were ordered by estimated percent of total enrollment that was composed of postdoctorals. The ordered groups formed a sampling list. For each medical school, the estimated graduate and postdoctoral enrollment, M_i, and the cumulative enrollment were listed. This cumulative enrollment, cum (M_i), was computed for the i^{th} school as follows:

$$\text{cum } (M_i) = \sum_{j=1}^{i} M_j$$

The value of cum (M_i) was simply the sum of the enrollments of all schools listed before i^{th} school plus the enrollment of the i^{th} school.

The selection interval, I, was then computed as $M_m/12$; i.e., 18,639/12. Then, a random number, R, between 1 and I was selected from a table of random numbers. Twelve selection numbers were then computed as follows:

$$R, R + I, R + 2I, R + 3I, \ldots, R + 11I$$

Each selection number identified a possible selection for the R&V study. The school determined by a particular selection number was the first one on the list for which cum (M_i) was equal to or greater than the selection number. This produced a sample of 12 medical schools, which were selected initially to provide possible substitute schools to replace nonparticipating schools. The 10 schools used as the main sample were picked with equal probability from the 12 schools initially selected. Hence, the selection probability for each medical school in the main sample was $10 M_i/M$; i.e., $(12 M_i/M)(10/12)$.

The 20 graduate institutions were selected in an analogous way. The 235 graduate institutions were first partitioned into three groups: Engineering, physical sciences, and mathematical sciences; life sciences; and psychology and social sciences. Within each of these groups, the schools were ordered by percent of enrollment represented by postdoctorals (as for medical schools). The three groups were then combined to form a single sampling list.

Twenty-three graduate institutions were selected from this ordered list, with probabilities proportional to size. Twenty of these institutions were picked at random for the main sample, with the other three serving as possible substitutes. The selection of the 23 graduate institutions was carried out in a manner similar to that described for the medical schools. In the case of the graduate schools the selection interval, I, was $M_d/23$ (i.e., 159,109/23). If R represented the random start, that is, a random number between 1 and I, the 23 selection numbers were the following:

$$R, R + I, R + 2I, \ldots, R + 22I$$

Twenty of the above 23 selection numbers were drawn at random to identify the initial sample, with the remaining three serving as possible substitutes.

Sample selection of departments

Four science departments were sampled from each of the 30 institutions that were selected for the R&V sample, providing 120 departments for the study. These departments were selected with probabilities proportional to the number (or estimated number) of graduate students plus postdoctorals they contained. As mentioned earlier, 1973 enrollment data were not available to use for the selection of the sample; therefore, the 1972 data were used as measures of departments sizes. For each of the few "new" science departments in 1973, an average enrollment for departments in the school in the same general classification was inputed as the measure of size.

The selection of four departments from each of the 30 institutions was carried out in a way similar to that used for the selection of schools. The departments in each graduate institution were first grouped by the three classifications mentioned above. Within each of these three groups departments were ordered by postdoctoral percent of enrollment. A similar ordering of medical school departments was used. Statisticians and analysts interested in the detailed sampling techniques used for department selection and calculation of weights may contact the Division of Science Resources Studies for further information.

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Graduate and medical schools and the departments selected for the sample are given below.

Graduate Schools and Departments Selected

University of Akron
- Physics
- Psychology
- Urban Studies
- Biology

Bowling Green State University
- Mathematics
- Biology
- Psychology
- Political Science

University of California at Los Angeles
- Biology
- Urban Planning
- Energy & Kinetics
- Mechanics & Structures

Carnegie-Mellon University
- Electrical Engineering
- Metallurgy & Material Science
- Physics
- Biological Sciences

University of Cincinnati
- History
- Chemistry
- Mathematics
- Economics

City University of New York
- Psychology
- Speech
- Anthropology
- Chemistry

Duke University
- Political Science
- Physics
- Psychology
- Mathematics

University of Illinois
- Geography
- Electrical Engineering
- Mechanical & Industrial Engineering
- Chemistry

Iowa State University
- Agricultural Engineering
- Chemistry
- Zoology & Entomology
- Economics

Johns Hopkins University
- Earth & Planetary Science
- Chemistry
- Geography
- Political Economy

University of Kentucky
- Political Science
- Chemistry
- Mathematics
- Plant Physiology

Massachusetts Institute of Technology
- Electrical Engineering
- Civil Engineering
- Aeronautics & Astronautics
- Biology

Michigan State University
- Horticulture
- Political Science
- Physics
- Communications

University of Oklahoma
- Meteorology
- Political Science
- Botany & Microbiology
- Anthropology

Oregon State University
- Food Science & Technology
- Electrical & Computer Engineering
- Fish & Wildlife
- Oceanography

Purdue University
- Materials Engineering
- Civil Engineering
- Biology
- Physics

Rensselaer Polytechnic Institute
- Biomedical Engineering
- Mathematics
- Chemistry
- Electric Power Engineering

Rutgers University
- Animal Sciences
- Physics
- Civil & Environmental Engineering
- Sociology

SUNY-College of Environmental Science and Forestry
- Forest Chemistry
- World Forestry
- Paper Technology
- Engineering

University of Texas at Austin
- Civil Engineering
- Economics
- Psychology
- Sociology

Medical Schools and Departments Selected

University of California, Davis Medical School
- Behavioral Biology
- Biological Chemistry
- Pulmonary
- Infectious Diseases

University of California, San Francisco Medical Center
- Biochemistry & Biophysics
- Urology
- Medicine
- History of Health Science

University of Colorado Medical Center
- Biophysics & Human Genetics
- Anatomy
- Gastroenterology
- Dermatology

University of Minnesota, Minneapolis Medical School
- Pharmacology
- Biochemistry
- Surgery
- Medicine

University of North Carolina Medical School
- Pathology
- Biochemistry & Nutrition
- Biomedical Engineering & Mathematics
- Cardiology

University of Oklahoma Health Sciences Center
- Cardiology
- Psychiatry & Behavioral Science
- Obstetrics & Gynecology
- Biochemistry & Molecular Biology

University of Southern California Medical School
- Biological Chemistry
- Pathology
- Pediatrics
- Physiology

Sample selection of students and postdoctorals

The sample of students and postdoctorals to be intervi completed questionnaries, 450 from graduate students ar number selected and number of completed interviews are

Table I-9. Number of students and postd interviewed and number actually i

Students and postdoctorals	Number selected		
	Total	Medical schools	Gradua institutio
Total	725	213	512
Graduate students	529	118	411
Postdoctorals	196	95	101

egon State University
Food Science & Technology
Electrical & Computer Engineering
Fish & Wildlife
Oceanography

due University
Materials Engineering
Civil Engineering
Biology
Physics

sselaer Polytechnic Institute
Biomedical Engineering
Mathematics
Chemistry
Electric Power Engineering

gers University
Animal Sciences
Physics
Civil & Environmental Engineering
Sociology

NY-College of Environmental Science and Forestry
Forest Chemistry
World Forestry
Paper Technology
Engineering

versity of Texas at Austin
Civil Engineering
Economics
Psychology
Sociology

Medical Schools and Departments Selected

University of California, Davis
Medical School
Behavioral Biology
Biological Chemistry
Pulmonary
Infectious Diseases

University of California, San Francisco Medical Center
Biochemistry & Biophysics
Urology
Medicine
History of Health Science

University of Colorado Medical Center
Biophysics & Human Genetics
Anatomy
Gastroenterology
Dermatology

University of Minnesota, Minneapolis
Medical School
Pharmacology
Biochemistry
Surgery
Medicine

University of North Carolina
Medical School
Pathology
Biochemistry & Nutrition
Biomedical Engineering & Mathematics
Cardiology

University of Oklahoma Health Sciences Center
Cardiology
Psychiatry & Behavioral Science
Obstetrics & Gynecology
Biochemistry & Molecular Biology

University of Southern California
Medical School
Biological Chemistry
Pathology
Pediatrics
Physiology

University of Texas Health Science Center
Biological Chemistry
Obstetrics & Gynecology
Internal Medicine
Physiology

University of Wisconsin Medical School
Neurophysiology
Genetics
Hematology
Otolaryngology

Yale School of Medicine
Molecular Biophysics & Biochemistry
Otolaryngology
Epidemiology & Public Health
Pharmacology

Sample selection of students and postdoctorals

The sample of students and postdoctorals to be interviewed was designed to yield about 600 completed questionnaries, 450 from graduate students and 150 from postdoctorals. The actual number selected and number of completed interviews are shown in table I-9.

Table I-9. Number of students and postdoctorals selected to be interviewed and number actually interviewed: 1973

Students and postdoctorals	Number selected			Number interviewed		
	Total	Medical schools	Graduate institutions	Total	Medical schools	Graduate institutions
Total	725	213	512	558	196	362
Graduate students	529	118	411	397	72	325
Postdoctorals	196	95	101	161	124	37

The questionnaire used for the interviews follows. Further details on the selection of students and postdoctorals can be obtained by contacting the Division of Science Resources Studies.

OMB No. 99 F-74006
Expires August 31, 1974

Institution _____
Department _____
Interviewer _____
Date _____

TELEPHONE QUESTIONNAIRE

Hello, my name is _____ I am with Westat, Inc., a national research company. We are conducting a nationwide survey for the National Science Foundation. The survey is concerned with colleges and universities granting advanced degrees in scientific fields. As part of this survey, we are calling some students (postdoctorals) in order to ask them a few questions. This will take only a few minutes and your cooperation will be greatly appreciated. All your answers will be kept strictly confidential and will be used for statistical purposes only.

1 During the Fall of 1973, were you enrolled at _____ (Name of Institution)

Yes (Go to Q.2) 1
No 2

(Do not accept a "No" answer without probing. Ask: During the Fall of 1973 you *were not* a student (postdoctoral) at (Name of Institution)? If the respondent insists on a "No" answer, thank him and terminate the interview).

2. In which department were you enrolled: _____

3. At that time were you enrolled in an advanced degree program?

Yes 1
No 2

3.A. Were you a

Graduate student ..... 1 (Go to Q.5)
Postdoctoral ..... 2 (Go to Q.4)
Neither ..... 3 (Terminate Interview)

FOR POSTDOCTORALS ONLY

4. Did your support come from:

U.S. Government sources 1
Non-U.S. Government sources 2

4.A Was your appointment for:

A fellowship 1
A traineeship 2
Research associate 3
Other (specify) 4

4.B In what year did you receive your doctoral (M.D.) degree? _____

FOR POSTDOCTORALS TERMINATE INTERVIEW HERE.

5 In the Fall of 1973 were you enrolled as a full time, part time or special student?

Full time 1
Part time 2
Special ..... 3 Terminate Interview

6. At that time had you completed:

Less than a full year of graduate study 1
One year or more of graduate study 2

(For students who had answered "par terminate interview after getting an ar graduate students continue Q.7.)

7. Not including tuition, did you receive any type of f of 1973? (Do not include government loans.)

Yes (Go to Q.8) .....
No (Skip to Q.9) .....

8. What type of support did you receive in the fall c

Fellowship or traineeship
Graduate research assistar
Graduate teaching assistar
Other (specify) .....

9 We are interested in determining how full time gra themselves in the Fall of 1973. Considering your t time, *but not including tuition or government loans* sources of support and what percentages of the t

First Source _____
Second Source _____
Third Source _____
Fourth Source _____

(Interviewer: If the sources named by up to 80%, ask for other sources until Probe for specific sources. For instar probe for which agency within HEW, the Veterans Administration is not me main sources above, ask Q. 9A, Othe

9.A Were you receiving any Veterans Benefits under

Yes .....
No .....

10. In the Fall of 1973, were you a citizen of the U.S

Yes .....
No .....

11. (Interviewer, fill in):

Male .....
Female .....

Detach this portion and destroy following home office information.

Student's Name _____
Student's Address _____
Student's Area Code _____ Telephone N

THANK YOU FOR YOUR

tionnaire used for the interviews follows. Further details on the selection of students and postdoctorals can be obtained by the Division of Science Resources Studies.

OMB No. 99 F-74006
Expires August 31, 1974

Institution _____
Department _____
Interviewer _____
Date _____

HONE QUESTIONNAIRE

_____ I am with Westat, Inc., a national research company. vey for the National Science Foundation. The survey is es granting advanced degrees in scientific fields. As part of ts (postdoctorals) in order to ask them a few questions. This operation will be greatly appreciated All your answers will e used for statistical purposes only.

enrolled at (Name of Institution)

(Q.2) 1
..... 2

answer without probing Ask: During the *not* a student (postdoctoral) at (Name of ondent insists on a "No" answer, thank him rview).

rolled: _____

an advanced degree program?
..... 1
..... 2

tudent ..... 1 (Go to Q.5)
l ..... 2 (Go to Q.4)
..... 3 (Terminate Interview)

nment sources 1
overnment sources 2
..... 1
..... 2
..... 3
..... 4
doctoral (M.D.) degree? _____
INTERVIEW HERE.

d as a full time, part time or special student?
..... 1
..... 2
..... 3 Terminate Interview

full year of graduate study 1
more of graduate study 2

(For students who had answered "part time" in response to Q.5, terminate interview after getting an answer to Q.6. For full time graduate students continue Q.7.)

7 Not including tuition, did you receive any type of financial support in the Fall of 1973? (Do not include government loans.)
Yes (Go to Q.8) 1
No (Skip to Q.9) 2

8. What type of support did you receive in the fall of 1973?
Fellowship or traineeship 1
Graduate research assistantship 2
Graduate teaching assistantship 3
Other (specify) 4

9 We are interested in determining how full time graduate students supported themselves in the Fall of 1973. Considering your total financial needs at that time, *but not including tuition or government loans*, please tell me your major sources of support and what percentages of the total each accounted for.

	%
First Source	
Second Source	
Third Source	
Fourth Source	

(Interviewer: If the sources named by the respondent do not add up to 80%, ask for other sources until the 80% figure is reached. Probe for specific sources. For instance, if the answer is HEW, probe for which agency within HEW, such as NIH, NDEA, etc. If the Veterans Administration is not mentioned as one of the three main sources above, ask Q. 9A. Otherwise, go to Q. 10)

9.A Were you receiving any Veterans Benefits under the GI Bill of Rights?
Yes 1
No 2

10. In the Fall of 1973, were you a citizen of the U.S.?
Yes 1
No 2

11. (Interviewer, fill in):
Male 1
Female 2

Detach this portion and destroy following home office coding to insure confidentiality of student information.
Student's Name _____
Student's Address _____
_____
Student's Area Code _____ Telephone No. _____

THANK YOU FOR YOUR COOPERATION

COVERAGE OF DATA COMPARABILITY BETWEEN THE NSF SURVEY OF GRADUATE SCIENCE STUDENT SUPPORT AND OTHER SURVEYS OF GRADUATE STUDENTS

The National Center for Educational Statistics (NCES) within the Department of Health, Education, and Welfare acquires enrollment data as part of its Higher Education General Information Survey (HEGIS), conducted annually. The 15th Annual survey of Students Enrolled for Advanced Degrees (SEAD) was conducted in Fall 1973 as part of this series. The most recent publication representing the results of this survey, however, appeared in 1974 and represented Fall 1971 graduate enrollment in master's and Ph.D.-granting institutions. Thus, comparability between NCES and NSF's 1972 and 1973 surveys of graduate science enrollment cannot be calculated at this time. However, the NSF traineeship data for 1971 (before the 1973 survey was expanded to approximate universe coverage of graduate science departments) were compared in a prior publication with the results of the SEAD for that year, and it was found that over 87 percent of all graduate science enrollment in the United States had been accounted for in the NSF traineeship applications.[4]

The Council of Graduate Schools in the United States (CGS) conducted its annual enrollment survey of 308 members in 1973, requesting deans of both master's and doctorate-granting institutions to provide full- and part-time graduate enrollment and type of support in the following disciplines: education, humanities, social sciences (anthropology, business, economics, geography, history, political science, and sociology), physical sciences (chemistry, computer science, geology, mathematics, physics, and statistics), engineering, and biological sciences (agriculture, biology, health professions, home economics, psychology, and zoology). This taxonomy differs considerably from that used in both the SEAD and the NSF surveys. For example, NSF does not survey nonscience fields, and excludes business and history from the social sciences. As noted above, the CGS survey considers computer sciences, mathematics, and statistics to be in the physical sciences, while NSF treats these fields separately as mathematical sciences. Also, home economics and psychology are included by CGS under biological sciences while NSF does not treat home economics as a science and considers the biological sciences as part of the life sciences. With these differences in mind, tables I-10 and I-11 have been included to illustrate the overall findings of the two surveys in regard to the science-doctorate-granting institutions. Master's institutions were not surveyed by NSF.

[4] See National Science Foundation, *Graduate Science Education Student Support and Postdoctorals, Fall 1972* (NSF 73-315), appendix I, table B (Washington, D.C. 20402. Supt. of Documents, U.S. Government Printing Office, 1974).

Table I-10. Comparison of total graduate enrollment statis from the Council of Graduate Schools with NSF's Surve of Graduate Science Student Support: 1972 to 1973

Area of science	Total graduate enrollment		Control of i Public	
	CGS	NSF	CGS	NSF
Total, all areas:				
1973	274,350	217,962	198,993	151,830
1972	268,606	210,895	194,733	146,663
Percent change	2.1	-1.0	2.2	-1.1
Engineering				
1973	45,830	52,251	30,299	32,571
1972	45,819	51,624	30,703	32,523
Percent change	(1)	-1.8	-1.3	-.8
Physical sciences[2]				
1973	47,877	51,508	35,620	36,580
1972	48,777	51,172	35,892	36,247
Percent change	-1.8	-2.5	-.8	-2.8
Biological sciences[3]				
1973	70,097	65,634	56,434	49,612
1972	65,523	60,005	52,756	44,951
Percent change	6.9	1.9	6.9	10.4
Social sciences				
1973	110,546	48,569	76,640	33,067
1972	108,487	48,094	75,382	32,942
Percent change	1.9	-2.0	1.7	-1.3

[1] Less than 0.5 percent.
[2] Includes mathematical sciences.
[3] Includes psychology.
[4] Includes home economics (CGS only).
[5] Includes business and history (CGS only).
[6] Includes all other sciences not elsewhere classified.
Note. Percent changes are for matched departments.
Source. NSF Survey of Graduate Science Student Support, 1973, Counci *Communicator*, Special Report #2, dated September, 1974.

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Table I-10. Comparison of total graduate enrollment statistics from the Council of Graduate Schools with NSF's Survey of Graduate Science Student Support: 1972 to 1973

Area of science	Total graduate enrollment		Control of institution: Public		Control of institution: Private	
	CGS	NSF	CGS	NSF	CGS	NSF
Total, all areas:						
1973	274,350	217,962	198,993	151,830	75,357	66,132
1972	268,606	210,895	194,733	146,663	73,873	64,232
Percent change	2.1	-1.0	2.2	-1.1	2.0	-.8
Engineering						
1973	45,830	52,251	30,299	32,571	15,531	19,680
1972	45,819	51,624	30,703	32,523	15,116	19,101
Percent change	(1)	-1.8	-1.3	-.8	2.8	-3.6
Physical sciences[2]						
1973	47,877	51,508	35,620	36,580	12,257	14,928
1972	48,777	51,172	35,892	36,247	12,885	14,925
Percent change	-1.8	-2.5	-.8	-2.8	-4.9	-1.6
Biological sciences[3]						
1973	[4]70,097	65,634	[4]56,434	49,612	[4]13,663	16,022
1972	[4]65,523	60,005	[4]52,756	44,951	[4]12,767	15,054
Percent change	6.9	1.9	6.9	10.4	7.0	7.0
Social sciences						
1973	[5]110,546	[6]48,569	[5]76,640	[6]33,067	[5]33,906	[6]15,502
1972	[5]108,487	48,094	[5]75,382	32,942	[5]33,105	15,152
Percent change	1.9	-2.0	1.7	-1.3	2.4	-3.6

[1] Less than 0.5 percent.
[2] Includes mathematical sciences.
[3] Includes psychology.
[4] Includes home economics (CGS only).
[5] Includes business and history (CGS only).
[6] Includes all other sciences not elsewhere classified.
Note: Percent changes are for matched departments.
Source. NSF Survey of Graduate Science Student Support, 1973; Council of Graduate Schools, *Communicator*, Special Report #2, dated September, 1974.

Total graduate science enrollment as reported to NSF amounted to 218,000 students; the CGS survey accounted for 274,000 students. This difference occurred primarily in the social sciences, where the fields included are not comparable, as described above.

In a further attempt to determine comparability between the two sources, the contractor for the NSF survey was asked to determine the number of students reported in 80 science departments in graduate schools out of the 120 that were selected for the reliability and validity (R&V) study.[5] Data from these departments were compared with results from the CGS survey on these same departments to determine the extent of the individual differences. Of the 80 departments examined, a maximum of 49 were considered comparable enough for a meaningful analysis of full-time enrollment, primarily due to the differing concepts inherent in the two surveys: CGS partitions the data into academic programs or disciplines; NSF into academic departments. In many departments the two methods resulted in almost identical student counts, in others, they did not. Summarized in table I-12 are the results of the comparison of individual departments. Four responses with variances of over 100 students accounted for the substantial difference in total full-time students; discrepancies of this magnitude must be attributed to substantial coverage and/or definitional differences.

[5] See technical notes, p. 25, for description of the R&V study.

Table I-11. Comparison of first-year graduate enrollment statistics from the Council of Graduate Schools with NSF's Survey of Graduate Science Student Support: 1972 to 1973

Area of science	Total graduate enrollment		Control of institution: Public		Control of institution: Private	
	CGS	NSF	CGS	NSF	CGS	NSF
Total, all areas:						
1973	75,534	76,224	54,492	53,263	21,042	22,961
1972	72,403	71,136	52,123	50,258	20,280	20,879
Percent change	4.3	.3	4.5	-.9	3.8	3.2
Engineering						
1973	12,804	23,180	8,433	14,201	4,371	8,979
1972	12,078	21,144	7,873	13,819	4,205	7,325
Percent change	6.0	4.9	7.1	2.4	3.9	9.9
Physical sciences[1]						
1973	11,441	15,831	8,669	11,404	2,772	4,427
1972	10,838	15,386	8,055	11,054	2,783	4,332
Percent change	5.6	-2.9	7.6	-3.7	([2])	-1.0
Biological sciences[3]						
1973	[4]18,842	20,940	[4]14,585	15,980	[4]4,257	4,960
1972	17,765	18,334	13,902	13,880	3,863	4,454
Percent change	6.1	2.7	4.9	1.1	10.2	8.3
Social sciences						
1973	[5]32,447	[6]16,273	[5]22,805	[6]11,678	[5]9,642	[6]4,595
1972	[5]31,722	16,273	[5]22,293	11,505	[5]9,429	4,768
Percent change	2.3	-5.3	2.3	-4.5	2.3	-7.2

[1] Includes mathematical sciences.
[2] Less than 0.5 percent.
[3] Includes psychology.
[4] Includes home economics (CGS only).
[5] Includes business and history (CGS only).
[6] Includes all other sciences not elsewhere classified.
Note: Percent changes are for matched departments.
Source: NSF Survey of Graduate Science Student Support, 1973; Council of Graduate Schools, *Communicator;* Special Report #2, dated September, 1974.

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**Comparison of first-year graduate enrollment statistics
he Council of Graduate Schools with NSF's Survey
raduate Science Student Support: 1972 to 1973**

Total graduate enrollment		Control of institution: Public		Private	
CGS	NSF	CGS	NSF	CGS	NSF
75,534	76,224	54,492	53,263	21,042	22,961
72,403	71,136	52,123	50,258	20,280	20,879
4.3	.3	4.5	-.9	3.8	-3.2
12,804	23,180	8,433	14,201	4,371	8,979
12,078	23,144	7,873	13,819	4,205	9,325
6.0	4.9	7.1	2.4	3.9	9.9
11,441	15,831	8,669	11,404	2,772	4,427
10,838	15,386	8,055	11,054	2,783	4,332
5.6	2.9	7.6	-3.7	(2)	-1.0
[1]18,842	20,940	[1]14,585	15,980	[1]4,257	4,960
17,765	18,334	10,902	13,880	3,863	4,454
6.1	2.7	4.9	1.1	10.2	8.3
[3]32,447	[4]16,273	[3]22,805	[4]11,678	[3]9,642	[4]4,595
[3]31,722	16,273	[3]22,293	11,505	[3]9,429	4,768
2.3	-5.3	2.3	-4.5	2.3	-7.2

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ort #2, dated September, 1974.

Table I-12. Comparison of enrollment data from 1973 survey with CGS survey results in selected graduate departments

Enrollment status	Number of departments compared	Number of graduate students: GSSS survey	Number of graduate students: CGS survey	CGS survey as percent of GSSS survey
Full-time	49	4,846	4,213	86.9
First year	45	1,352	1,417	104.8
Part-time	42	1,258	1,433	113.9
First year	40	599	561	93.7

When full-time enrollment from both surveys was compared in terms of mechanisms of support, the NSF survey results were consistently higher than data from the CGS survey except first-year research assistants which were virtually identical (table I-13).

Table I-13. Comparison of data on types of support from 1973 survey with CGS survey results in selected graduate departments

Type of support of full-time students	Number of departments compared	Number of graduate students: GSSS survey	Number of graduate students: CGS survey	CGS survey as percent of GSSS survey
Fellowships and traineeships	43	924	672	72.7
First year	35	264	192	72.7
Teaching assistantships	48	1,576	1,529	97.0
First year	40	430	376	87.4
Research assistantships	47	1,075	926	86.1
First year	38	190	192	101.2

Table I-14. Number of graduate departments in the 339 doctorate-granting institutions covered in the GSSS survey, by area and field of scie

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Total	6,559	876	5,683
Engineering	926	189	737
Aeronautical, total	35	5	30
Aeronautical and astronautical engineering	3		3
Aeronautical engineering	1		1
Aeronautics	2		2
Aeronautic and astronautics	6		6
Aerospace engineering	21	4	17
Aerospace engineering and engineering physics	2	1	1
Agricultural, total	47	19	28
Agricultural and irrigation engineering	1		1
Agricultural engineering	41	17	24
Chemical and paper engineering	1	1	
Wood products engineering	1		1
Wood Technology	3	1	2
Chemical, total	111	15	96
Chemical and metallurgical engineering	5	1	4
Chemical and nuclear engineering	2		2
Chemical engineering and materials science	4		4
Chemical engineering	94	11	83
Plastics	1	1	
Textiles	5	2	3
Civil, total	125	25	100
Civil and environmental engineering	7		7
Civil and geological engineering	1		1
Civil engineering	104	25	79
Civil engineering and engineering mechanics	2		2
Environmental engineering	5		5
Environmental sciences and engineering	6		6
Electrical, total	132	21	111
Electrical computer science	4		4
Electrical engineering	127	21	106
Electronics and Instrumental	1		1
Engineering science, total	53	5	47
Applied mechanics	6		6
Applied science	3	2	1
Engineering acoustics	1		1
Engineering and applied physics	1		1
Engineering and applied science	1		1
Engineering mechanics	17	1	16
Engineering physics	1		1
Engineering science			
Fluid dynamics			
Mechanical science			
Mechanics			
Mechanics and hydraulics			
Theoretical and applied mechanics			
Industrial, total			
Administrative science			
Engineering Management			
Industrial communication engineering			
Industrial engineering and management science			
Industrial engineering and operations research			
Industrial engineering			
Industrial management			
Management			
Management engineering			
Management science			
Manufacturing engineering			
Operations research			
Systems engineering			
Mechanical, total			
Aerospace and mechanical engineering			
Architectural engineering			
Marine engineering and naval architecture			
Mechanical and aeronautical engineering and material science			
Mechanical and industrial engineering			
Mechanical engineering and applied mechanics			
Mechanical engineering			
Naval architecture			
Transportation			
Welding engineering			
Metallurgical, total			
Ceramic engineering			
Ceramics			
Material science			
Materials engineering			
Metallurgical and materials engineering			
Metallurgical engineering			
Metallurgy			
Solid state science and technology			
Mining, total			
Geological engineering			
Mineral engineering			
Mineral preparation			

of graduate departments in the 339 doctorate-granting institutions covered in the GSSS survey, by area and field of science. 1973

tal title	Total	Master's departments	Doctorate departments
	6,559	876	5,683
	926	189	737
	35	5	30
g	3		3
	1		1
	2		2
	6		6
	21	4	17
hysics	2	1	1
	47	19	28
	1		1
	41	17	24
	1	1	
	1		1
	3	1	2
	111	15	96
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ce	4		4
	94	11	83
	1	1	
	5	2	3
	125	25	100
	7		7
	1		1
	104	25	79
ics	2		2
	5		5
	6		6
	132	21	111
	4		4
	127	21	106
	1		1
	52	5	47
	6		6
	3	2	1
	1		1
	1		1
	1		1
	17	1	16
	1		1

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Engineering science	13	2	11
Fluid dynamics	1		1
Mechanical science	0		
Mechanics	5		5
Mechanics and hydraulics	1		1
Theoretical and applied mechanics	2		2
Industrial, total	88	28	60
Administrative science	2		2
Engineering Management	3	3	
Industrial communication engineering	1		1
Industrial engineering and management science	4	1	3
Industrial engineering and operations research	3		3
Industrial engineering	39	10	29
Industrial management	3	1	2
Management	2		2
Management engineering	2	2	
Management science	7	4	3
Manufacturing engineering	2	2	
Operations research	9		9
Systems engineering	11	5	6
Mechanical, total	133	27	106
Aerospace and mechanical engineering	16		16
Architectural engineering	1	1	
Marine engineering and naval architecture	1		1
Mechanical and aeronautical engineering and material science	4		4
Mechanical and industrial engineering	2	1	1
Mechanical engineering and applied mechanics	2		2
Mechanical engineering	102	23	79
Naval architecture	2		2
Transportation	2	1	1
Welding engineering	1	1	
Metallurgical, total	62	6	56
Ceramic engineering	9	2	7
Ceramics	2		2
Material science	11	2	9
Materials engineering	11		11
Metallurgical and materials engineering	11		11
Metallurgical engineering	10	2	8
Metallurgy	7		7
Solid state science and technology	1		1
Mining, total	18	8	10
Geological engineering	2		2
Mineral engineering	4	3	1
Mineral preparation	1		1

Table I-14—Con.

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Mining	2	1	1
Mining engineering	9	4	5
Nuclear, total	30	3	27
Nuclear engineering	25	2	23
Nuclear science and engineering	5	1	4
Petroleum, total	13	2	11
Fuel technology	2		2
Petroleum and chemical engineering	2		2
Petroleum engineering	9	2	7
Engineering, n.e.c., total	80	25	55
Architecture	10	9	1
Bioengineering	9		9
Biomedical engineering	17		17
Biomedical engineering and Math	1		1
Clinical engineering	1		1
Economics of engineering	1		1
Energy engineering	3		3
Engineering	22	6	16
Engineering administration	2	2	
Engineering design	2	1	1
Engineering graphics	1	1	
Engineering mathematics	1		1
General engineering	2	1	1
Information engineering	1		1
Landscape Architecture	1	1	
Polymer science and engineering	1		1
Sanitary engineering	1	1	
Technology	2	2	
Textile engineering	2	1	1
Physical sciences	713	128	585
Astronomy, total	29	3	26
Astronomy	28	3	25
Astrophysics	1		1
Atmospheric sciences, total	25	2	23
Astrogeophysics	1		1
Atmospheric and space sciences	1		1
Atmospheric sciences	10		10
Meteorology	12	2	10
Meteorology and oceanography	1		1
Chemistry, total	224	27	197
Chemistry	217	26	191
Crystallography			
Paper technology			
Physical chemistry			
Polymer science			
Geosciences, total			
Earth and planetary science			
Earth sciences			
Environmental sciences			
Geochemistry			
Geodetic science			
Geological science			
Geology			
Geology and geography			
Geology and geological engineering			
Geology and geophysics			
Geophysics			
Geosciences			
Hydrology			
Minerology			
Paleontology			
Petroleum geology			
Oceanography, total			
Marine biology			
Marine science			
Ocean engineering			
Oceanography			
Physical oceanography			
Physics, total			
Applied Physics			
Astronomy and space science			
Chemical physics			
Electronics			
Optical science			
Optics			
Physical sciences			
Physics			
Physics and astronomy			
Physics and astrophysics			
Physics and geophysics			
Physics and Mathematics			
Planetary and space science			
Solid state physics			
Space Science			

epartmental title	Total	Master's departments	Doctorate departments
	2	1	1
	9	4	5
	30	3	27
	25	2	23
	5	1	4
	13	2	11
	2		2
ing	2		2
	9	2	7
	80	25	55
	10	9	1
	9		9
	17		17
	1		1
	1		1
	1		1
	3		3
	22	6	16
	2	2	
	2	1	1
	1	1	
	1		1
	2	1	1
	1		1
	1	1	
	1		1
	1	1	
	2	2	
	2	1	1
	713	128	585
	29	3	26
	28	3	25
	1		1
	25	2	23
	1		1
	1		1
	10		10
	12	2	10
	1		1
	224	27	197
	217	26	191

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Crystallography	1		1
Paper technology	2	1	1
Physical chemistry	1		1
Polymer science	3		3
Geosciences, total	179	53	126
Earth and planetary science	5	1	4
Earth sciences	18	8	10
Environmental sciences	9	5	4
Geochemistry	3		3
Geodetic science	1		1
Geological science	17	3	14
Geology	82	29	53
Geology and geography	7	2	5
Geology and geological engineering	2		2
Geology and geophysics	10	1	9
Geophysics	10	1	9
Geosciences	10	3	7
Hydrology	2		2
Mineralogy	1		1
Paleontology	1		1
Petroleum geology	1		1
Oceanography, total	34	3	31
Marine biology	1		1
Marine science	11	2	9
Ocean engineering	6	1	5
Oceanography	15		15
Physical oceanography	1		1
Physics, total	222	40	182
Applied Physics	5		5
Astronomy and space science	1		1
Chemical physics	5		5
Electronics	1		1
Optical science	1		1
Optics	1		1
Physical sciences	2	1	1
Physics	108	37	143
Physics and astronomy	20	2	18
Physics and astrophysics	1		1
Physics and geophysics	1		1
Physics and Mathematics	1		1
Planetary and space science	1		1
Solid state physics	1		1
Space Science	1		1

Table I-14—Con.

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Mathematical sciences	339	83	256
Applied mathematics, total	74	19	55
Applied mathematics	7	1	6
Applied mathematics and computer science	1	.....	1
Computer science	56	17	39
Health computer science	2	.....	2
Information Science	8	1	7
Mathematics, total	219	61	158
Mathematical science	10	4	6
Mathematics	199	54	145
Mathematics and applied mathematics	1	1	.....
Mathematics and astronomy	1	1	.....
Mathematics and statistics	7	1	6
Quantitative studies	1	.....	1
Statistics, total	46	3	43
Applied statistics	2	1	1
Mathematical statistics	1	.....	1
Statistics	41	1	40
Statistics and computer science	2	1	1
Life Sciences	3,422	170	3,252
Agriculture, total	270	61	209
Agricultural chemistry	3	.....	3
Agricultural education	1	1	.....
Agricultural Microbiology	1	.....	1
Agricultural Science	3	2	1
Agronomy	30	4	26
Agronomy and genetics	2	.....	2
Animal breeding	2	.....	2
Animal diseases	1	.....	1
Animal Husbandry	2	.....	2
Animal industry	4	2	2
Animal nutrition	2	.....	2
Animal science	41	8	33
Crop and soil science	2	1	1
Dairy husbandry	1	.....	1
Dairy science	16	5	11
Farm crops	3	.....	3
Floriculture	1	.....	1
Forest Botany	1	.....	1
Forest Chemistry	1	.....	1
Forest entomology	1	.....	1
Forest management	3	1	2
Forest products	1	.....	1
Forest resources	6	1	5
Forestry			
Forestry and horticulture			
Horticulture			
International agriculture development			
Irrigation			
Natural resources			
Plant and soil science			
Plant breeding			
Plant science			
Poultry husbandry			
Poultry science			
Range management			
Range science			
Recreation and parks			
Resource development			
Resource sciences			
Silviculture			
Soil science			
Soils			
Soils and meteorology			
Vegetable crops			
Water resources			
Water resources administration			
Watershed management			
Wildlife			
Wildlife management			
Anatomy, total			
Anatomy			
Anatomy and cell biology			
Human anatomy			
Biochemistry, total			
Agricultural biochemistry			
Agricultural biochemistry/nutrition			
Biochemical science			
Biochemistry			
Biochemistry/biophysics			
Biochemistry/molecular biology			
Biochemistry/nutrition			
Biochemistry/pharmacology			
Biological chemistry			
Comparative biochemistry			
Lipid research			
Physiological chemistry			
Biology, total			
Behavioral biology			
Biology			

ental title	Total	Master's departments	Doctorate departments
	339	83	256
	74	19	55
	7	1	6
nce	1		1
	56	17	39
	2		2
	8	1	7
	219	61	158
	10	4	6
	199	54	145
	1	1	
	1	1	
	7	1	6
	1		1
	46	3	43
	2	1	1
	1		1
	41	1	40
	2	1	1
	3,422	170	3,252
	270	61	209
	3		3
	1	1	
	1		1
	3	2	1
	30	4	26
	2		2
	2		2
	1		1
	2		2
	4	2	2
	2		2
	41	8	33
	2	1	1
	1		1
	16	5	11
	3		3
	1		1
	1		1
	1		1
	1		1
	3	1	2
	1		1
	6	1	5

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Forestry	25	7	18
Forestry and horticulture	1		1
Horticulture	31	9	22
International agriculture development	1	1	
Irrigation	1	1	
Natural resources	5	2	3
Plant and soil science	8	1	7
Plant breeding	1		1
Plant science	10	1	9
Poultry husbandry	1		1
Poultry science	15	5	10
Range management	4	1	3
Range science	3		3
Recreation and parks	3	1	2
Resource development	2	1	1
Resource sciences	2	1	1
Silviculture	1		1
Soil science	8		8
Soils	3		3
Soils and meteorology	1		1
Vegetable crops	3	1	2
Water resources	4	1	3
Water resources administration	2		2
Watershed management	1		1
Wildlife	3	1	2
Wildlife management	3	2	1
Anatomy, total	96	2	94
Anatomy	94	2	92
Anatomy and cell biology	1		1
Human anatomy	1		1
Biochemistry, total	151	3	148
Agricultural biochemistry	2		2
Agricultural biochemistry/nutrition	1		1
Biochemical science	1		1
Biochemistry	114	3	111
Biochemistry/biophysics	8		8
Biochemistry/molecular biology	3		3
Biochemistry/nutrition	5		5
Biochemistry/pharmacology	1		1
Biological chemistry	11		11
Comparative biochemistry	1		1
Lipid research	1		1
Physiological chemistry	3		3
Biology, total	127	28	99
Behavioral biology	1		1
Biology	117	28	89

Table I-14—Con.

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Developmental biology	4		4
Environmental biology	1		1
Evolutionary biology	1		1
Experimental biology	1		1
Population biology	2		2
Biometry and biostatistics, total	23	1	22
Biomathematics	4		4
Biometry	11		11
Biostatistics	8	1	7
Biophysics, total	38	1	37
Biophysical sciences	1		1
Biophysics	17		17
Biophysics and physical biochemistry	1		1
Biophysics/human genetics	1		1
Biophysics/microbiology	1		1
Cell biophysics	1		1
Engineering biophysics	1		1
Medical physics	2		2
Molecular biophysics	2		2
Molecular biophysics and biochemistry	1		1
Radiation biology	5	1	4
Radiation biology and biophysics	2		2
Radiation biophysics	1		1
Radiobiology	1		1
Radiological physics	1		1
Biosciences, n.e.c., total	56	11	45
Biological sciences	37	7	30
Biomedical science	4		4
Comparative medicine	1		1
General science	2		2
Health sciences	3	1	2
Laboratory	1		1
Life science	7	2	5
Natural science	1	1	
Botany, total	91	5	86
Botanical science	1		1
Botany	47	3	44
Botany and microbiology	4	1	3
Botany and plant pathology	8	1	7
Plant pathology	26		26
Plant physiology	5		5
Cell biology, total	25		25
Biological structure	2		2
Cellular biology			
Molecular biology			
Ecology, total			
Ecology			
Human ecology			
Entomology and parasitology, total			
Entomology			
Entomology/parasitology			
Parasitology			
Genetics, total			
Genetics			
Human genetics			
Medical genetics			
Microbiology, total			
Bacteriology			
Bacteriology and public health			
Immunology			
Medical microbiology			
Medical microbiology/immunology			
Microbiology			
Microbiology/medical genetics			
Virology			
Virology and epidemiology			
Nutrition, total			
Food and nutrition			
Food economics			
Food science			
Food science/technology			
Food technology			
Foods			
Home economics			
Nutrition			
Pathology, total			
Anatomical pathology			
Clinical pathology			
Clinical pathology/laboratory medicine			
Medical pathology			
Oncology			
Pathobiology			
Pathology			
Radiation oncology			

mental title	Total	Master's departments	Doctorate departments
	4		4
	1		1
	1		1
	1		1
	2		2
	23	1	22
	4		4
	11		11
	8	1	7
	38	1	37
	1		1
	17		17
	1		1
	1		1
	1		1
	1		1
	1		1
	2		2
	2		2
	1		1
	5	1	4
	2		2
	1		1
	1		1
	1		1
	56	11	45
	37	7	30
	4		4
	1		1
	2		2
	3	1	2
	1		1
	7	2	5
	1	1	
	91	5	86
	1		1
	47	3	44
	4	1	3
	8	1	7
	26		26
	5		5
	25		25
	2		2

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Cellular biology	11		11
Molecular biology	12		12
Ecology, total	11		11
Ecology	10		10
Human ecology	1		1
Entomology and parisitology, total	42	2	40
Entomology	35	2	33
Entomology/parisitology	2		2
Parisitology	5		5
Genetics, total	49		49
Genetics	39		39
Human genetics	7		7
Medical genetics	3		3
Microbiology, total	162	7	155
Bacteriology	6		6
Bacteriology and public health	1		1
Immunology	8		8
Medical microbiology	9	1	8
Medical microbiology/immunology	5		5
Microbiology	130	6	124
Microbiology/medical genetics	1		1
Virology	1		1
Virology and epidemiology	1		1
Nutrition, total	61	12	49
Food and nutrition	14	2	12
Food economics	1	1	
Food science	16	3	13
Food science/technology	6	1	5
Food technology	2	1	1
Foods	1		1
Home economics	1	1	
Nutrition	20	3	17
Pathology, total	122	2	120
Anatomical pathology	1		1
Clinical pathology	7		7
Clinical pathology/laboratory medicine	1		1
Medical pathology	1		1
Oncology	6		6
Pathobiology	1		1
Pathology	104	2	102
Radiation oncology	1		1

Table I-14—Con.

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Pharmacology, total	117	.....	117
Biochemical pharmacology	2	.....	2
Medicinal chemistry	9	.....	9
Pharmacognosy	3	.....	3
Pharmacology	93	.....	93
Pharmacology/therapeutics	1	.....	1
Pharmacology/toxicology	6	.....	6
Psychopharmacology	1	.....	1
Toxicology	2	.....	2
Physiology, total	128	1	127
Animal physiology	2	.....	2
Exocrine physiology	1	.....	1
Human physiology	1	.....	1
Neurophysiology	1	.....	1
Physiological optics	1	.....	1
Physiological science	1	.....	1
Physiology	84	1	83
Physiology and anatomy	3	.....	3
Physiology and biophysics	23	.....	23
Physiology/Pharmacology	10	.....	10
Physiology, pharmacology, and biophysics	1	.....	1
Zoology, total	65	3	62
Fish and wildlife	3	.....	3
Fisheries	1	.....	1
Forest zoology	1	.....	1
Ornithology	1	1	.....
Wildlife biology	1	1	.....
Zoology	53	1	52
Zoology and entomology	3	.....	3
Zoology and physiology	2	.....	2
Other health sciences, incl. clinical, total	1,788	31	1,757
Administration	1	.....	1
Administrative medicine	1	.....	1
Allergy	1	.....	1
Allergy and immunology	1	.....	1
Allied health sciences	1	.....	1
Ambulatory medicine	1	.....	1
Anesthesiology	85	3	82
Arthritis	3	.....	3
Biopsychology	1	.....	1
Brain research	1	.....	1
Cardiology	70	.....	70
Cardiology	1	.....	1
Cardiopulmonary/biophysics	1	.....	1
Cardiorespiratory/pulmonary	1	.....	1
Cardiovascular medicine	11	.....	11
Cardiovascular surgery	1	.....	1
Chest disease	1	.....	1
Child studies	1	.....	1
Clinical laboratory science	1	.....	1
Clinical medicine	1	.....	1
Clinical pharmacology	1	.....	1
Community and environmental medicine	1	.....	1
Community and preventive medicine	1	.....	1
Community and public health	1	.....	1
Community medicine	1	.....	1
Connective tissue disease	1	.....	1
Dentistry	1	.....	1
Dental hygiene - Pedodontics	1	.....	1
Dermatology	1	.....	1
Diagnostic radiology	1	.....	1
Emergency medicine	1	.....	1
Endocrinology	1	.....	1
Endocrinology and metabolism	1	.....	1
Environmental health	1	.....	1
Environmental medicine	1	.....	1
Epidemiology	1	.....	1
Epidemiology and environmental health	1	.....	1
Experimental endocrinology	1	.....	1
Experimental medicine	1	.....	1
Family and community medicine	1	.....	1
Family practice	1	.....	1
Gastroenterology	1	.....	1
General practice	1	.....	1
Gynecology	1	.....	1
Health services	1	.....	1
Hematology	1	.....	1
Hematology and oncology	1	.....	1
Histology	1	.....	1
Hospital and health administration	1	.....	1
Human reproduction	1	.....	1
Hypertension	1	.....	1
Infectious diseases	1	.....	1
Internal medicine	1	.....	1
International health	1	.....	1
Laboratory animal medicine	1	.....	1
Maternal and child health	1	.....	1
Medical and education administration	1	.....	1
Medical and public affairs	1	.....	1
Medical research	1	.....	1
Medical sciences	1	.....	1
Medical technology	1	.....	1
Medicine	1	.....	1
Metabolism	1	.....	1
Metabolism, endocrinology, and diabetes	1	.....	1
Myocardial biology	1	.....	1

ntal title	Total	Master's departments	Doctorate departments
	117		117
	2		2
	9		9
	3		3
	93		93
	1		1
	6		6
	1		1
	2		2
	128	1	127
	2		2
	1		1
	1		1
	1		1
	1		1
	1		1
	84	1	83
	3		3
	23		23
	10		10
	1		1
	65	3	62
	3		3
	1		1
	1		1
	1	1	
	1	1	
	53	1	52
	3		3
	2		2
	1,288	31	1,757
	1		1
	1		1
	1		1
	1		1
	1		1
	1		1
	85	3	82
	3		3
	1		1
	1		1
	70		70
	1		1
	1		1
	1		1
	11		11

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Cardiovascular surgery	1		1
Chest diseases	5		5
Child studies	2		2
Clinical laboratory science	3		3
Clinical medicine	1		1
Clinical pharmacology	20		20
Community and environmental medicine	3		3
Community and preventive medicine	10		10
Community and public health	2		2
Community medicine	24		24
Connective tissue disease	2		2
Dentistry	5	1	4
Dental hygiene - Pedodontics	1		1
Dermatology	41		41
Diagnostic radiology	6		6
Emergency medicine	1		1
Endocrinology	52		52
Endocrinology and metabolism	19		19
Environmental health	5		5
Environmental medicine	2		2
Epidemiology	5		5
Epidemiology and environmental health	1		1
Experimental endocrinology	2		2
Experimental medicine	5		5
Family and community medicine	8		8
Family practice	28		28
Gastroenterology	70		70
General practice	1		1
Gynecology	1		1
Health services	3		3
Hematology	72		72
Hematology and oncology	4		4
Histology	1		1
Hospital and health administration	2		2
Human reproduction	1		1
Hypertension	2		2
Infectious diseases	15		15
Internal medicine	14		14
International health	1		1
Laboratory animal medicine	3		3
Maternal and child health	3		3
Medical and education administration	1		1
Medical and public affairs	1		1
Medical research	3		3
Medical sciences	3		3
Medical technology	1	1	
Medicine	60		60
Metabolism	3		3
Metabolism, endocrinology, and diabetes	1		1
Myocardial biology	1		1

Table I-14—Con.

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Nephrology	13	.....	13
Neurobiology	3	.....	3
Neurological surgery	16	.....	16
Neurology	79	.....	79
Neurology/neuropathology	1	.....	1
Neurosciences	7	.....	7
Neurosurgery	5	.....	5
Nuclear medicine	4	.....	4
Nursing	11	6	5
Nursing education	1	.....	1
Obstetrics	1	.....	1
Obstetrics/gynecology	91	.....	91
Occupational health	1	.....	1
Ophthalmology	86	1	85
Oral biology	2	1	1
Oral pathology	2	.....	2
Oral Surgery	4	.....	4
Orthodontics	2	.....	1
Orthopedic surgery	28	.....	28
Orthopedic surgery and rehabilitation	3	.....	3
Orthopedics	9	.....	9
Otorhinolaryngology	82	.....	82
Pediatric surgery	1	.....	1
Pediatrics	92	.....	92
Perinatal medicine	1	.....	1
Pharmaceutical chemistry	7	.....	7
Pharmaceutics	10	.....	10
Pharmacy	21	3	18
Physical diagnosis	1	.....	1
Physical medicine	4	.....	4
Physical medicine and rehabilitation	22	.....	22
Plastic surgery	4	.....	4
Post graduate medicine	1	.....	1
Preventive and social medicine	4	.....	4
Preventive medicine	11	.....	11
Preventive medicine and public health	5	.....	5
Primary health care	1	.....	1
Proctology	1	.....	1
Psychiatry	89	.....	89
Psychiatry and behavioral science	2	.....	2
Psychiatry and neurology	3	.....	3
Psychobiology	1	.....	1
Public health	6	.....	6
Public health and epidemiology	3	.....	3
Pulmonary disease	64	.....	64
Radiology	81	1	80
Rehabilitation medicine	20	.....	20
Rheumatology	5	.....	5
Small animal surgery			
Surgery			
Therapeutic radiology			
Tropical med/medical micro/parisitology			
Tropical medicine			
Urology			
Veterinary anatomy			
Veterinary bacteriology			
Veterinary medicine			
Veterinary parasitology			
Veterinary pathology			
Veterinary physiology			
Veterinary science			
Vivarial medicine			
Psychology, total			
Animal behavior			
Child development			
Child psychology			
Clinical psychology			
Educational psychology			
Experimental psychology			
Experimental social psychology			
Guidance			
Human development			
Medical psychology			
Mental health			
Physiological psychology			
Psychology			
Psychology and education			
Social psychology			
Social sciences			
Agricultural economics, total			
Agricultural economics			
Agricultural economics and sociology			
Agricultural economics and economics			
Anthropology, total			
Anthropology			
Archeology			
Economics, total			
Business economics			
Economics			
Economics and business administration			

mental title	Total	Master's departments	Doctorate departments
	13		13
	3		3
	16		16
	79		79
	1		1
	7		7
	5		5
	4		4
	11	6	5
	1		1
	1		1
	91		91
	1		1
	86	1	85
	2	1	1
	2		2
	4		4
	2	1	1
	28		28
	3		3
	9		9
	82		82
	1		1
	92		92
	1		1
	7		7
	10		10
	21	3	18
	1		1
	4		4
	22		22
	4		4
	1		1
	4		4
	11		11
	5		5
	1		1
	1		1
	89		89
	2		2
	3		3
	1		1
	6		6
	3		3
	64		64
	81	1	80
	20		20
	5		5

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Small animal surgery	1	1	
Surgery	91	1	90
Therapeutic radiology	10		10
Tropical med/medical micro/parisitology	2		2
Tropical medicine	1		1
Urology	31	1	30
Veterinary anatomy	6	1	5
Veterinary bacteriology	1		1
Veterinary medicine	7	3	4
Veterinary parasitology	3		3
Veterinary pathology	6	1	5
Veterinary physiology	4	1	3
Veterinary science	12	4	8
Vivarial medicine	1		1
Psychology, total	215	35	180
Animal behavior	1		1
Child development	5	3	2
Child psychology	1		1
Clinical psychology	4		4
Educational psychology	3		3
Experimental psychology	7	2	5
Experimental social psychology	1		1
Guidance	1	1	
Human development	5	1	4
Medical psychology	2		2
Mental health	1		1
Physiological psychology	3		3
Psychology	177	26	151
Psychology and education	1		1
Social psychology	3	2	1
Social sciences	928	269	659
Agricultural economics, total	41	9	32
Agricultural economics	36	6	30
Agricultural economics and sociology	3	2	1
Agricultural economics and economics	2	1	1
Anthropology, total	93	24	69
Anthropology	92	23	69
Archeology	1	1	
Economics, total	160	41	119
Business economics	1		1
Economics	150	40	110
Economics and business administration	2		2

Table I-14—Con.

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Industrial relations	1	1	
Managerial economics	1		1
Medical economics	1		1
Mineral economics	2		2
Political economy	2		2
Geography, total	86	37	49
Geography	85	37	48
Geography and anthropology	1		1
History and philosophy of science, total	77	5	72
History	21	4	17
History and philosophy of science	5		5
History of health sciences	1		1
History of Medicine	4		4
History of science	9		9
History of science and medicine	1		1
Logic and methodology of science	1		1
Philosophy	29	1	28
Philosophy of science	6		6
Linguistics, total	74	13	61
Biocommunications	4		4
Communications	3	1	2
Communications	3		3
Linguistics	45	6	39
Mass communication	1	1	
Psycholinguistics	1		1
Sensory communication	1		1
Speech	2	1	1
Speech and hearing science	4		4
Speech pathology	10	4	6
Political science, total	171	63	108
African affairs	1	1	
American studies	1	1	
Government	20	7	13
Government and foreign affairs	1		1
International Affairs	1		1
International relations	5	2	3
International studies	1	1	
Political science	131	44	87
Politics	3	1	2
Public administration	5	4	1
Public affairs	2	2	
Sociology, total			
Asian studies			
City planning			
Community studies			
Demography			
Environmental studies			
Family life			
Folklore			
Interdisciplinary studies			
International service			
Labor and industrial relations			
Latin American studies			
Regional planning			
Regional science			
Rural sociology			
Social relations			
Social sciences			
Social studies			
Society			
Sociology			
Urban planning			
Urban studies			
Sociology and anthropology, total			
Sociology and anthropology			
Social sciences, n.e.c., total			
Behavioral sciences			
Biobehavioral sciences			
Human behavior			
Social work			
Socio-Medical sciences			
All other sciences, n.e.c., total			
Avian science			
Business administration			
Education			
Health education			
Humanities			
Legal medicine			
Library, medical			
Physical education			
Pomology			
Postgraduate medical education			
Science education			

ntal title	Total	Master's departments	Doctorate departments
	1	1	
	1		1
	1		1
	2		2
	2		2
	86	37	49
	85	37	48
	1		1
	77	5	72
	21	4	17
	5		5
	1		1
	4		4
	9		9
	1		1
	1		1
	29	1	28
	6		6
	74	13	61
	4		4
	3	1	2
	3		3
	45	6	39
	1	1	
	1		1
	1		1
	2	1	1
	4		4
	10	4	6
	171	63	108
	1	1	
	1	1	
	20	7	13
	1		1
	1		1
	5	2	3
	1	1	
	131	44	87
	3	1	2
	5	4	1
	2	2	

Area, field of science, and departmental title	Total	Master's departments	Doctorate departments
Sociology, total	191	64	127
Asian studies	2	2	
City planning	1		1
Community studies	1		1
Demography	1	1	
Environmental studies	2		2
Family life	5	3	2
Folklore	1		1
Interdisciplinary studies	1		1
International service	1		1
Labor and industrial relations	2	1	1
Latin American studies	3	3	
Regional planning	5	2	3
Regional science	3	1	2
Rural sociology	2		2
Social relations	2	1	1
Social sciences	6		6
Social studies	2		2
Society	1	1	
Sociology	132	39	93
Urban planning	9	4	5
Urban studies	9	6	3
Sociology and anthropology, total	23	13	10
Sociology and anthropology	23	13	10
Social sciences, n.e.c., total	12		12
Behavioral sciences	6		6
Biobehavioral sciences	1		1
Human behavior	2		2
Social work	1		1
Socio-Medical sciences	2		2
All other sciences, n.e.c., total	16	2	14
Avian science	1	1	
Business administration	1		
Education	1		1
Health education	2		2
Humanities	1		1
Legal medicine	2		2
Library, medical	1		1
Physical education	1		1
Pomology	1		1
Postgraduate medical education	2		2
Science education	3		3

Table I-15. List of top 100 institutions, including affiliated medical schools, ranked on basis of total graduate enrollment: 19

Institution name	Rank	Graduate enrollment		
		Total	Full-time	Part-time
University of California, Berkeley		5,213	5,066	147
Total	1	5,213	5,066	147
University of Illinois		3,799	3,518	281
University of Illinois College of Medicine		585	486	99
Total	2	4,385	4,004	380
University of Minnesota		3,339	2,843	496
University of Minnesota, Minneapolis Medical School		594	560	34
Total	3	3,933	3,403	530
University of Wisconsin		3,539	3,350	189
University of Wisconsin Medical School		304	295	9
Total	4	3,843	3,645	198
Rutgers, The State University		3,434	1,577	1,857
Rutgers College of Medicine and Dentistry		92	91	1
Total	5	3,526	1,668	1,858
Ohio State University		3,303	2,804	499
Ohio State University College of Medicine		221	199	22
Total	6	3,524	3,003	521
University of Michigan		3,051	2,903	148
University of Michigan Medical School		296	288	8
Total	7	3,347	3,191	156
Michigan State University		2,771	2,586	185
Michigan State University College of Medicine		286	262	24
Total	8	3,057	2,848	209
University of California, Los Angeles		2,839	2,666	173
University of California, Los Angeles Medical School		213	205	8
Total	9	3,052	2,871	181
Massachusetts Institute of Technology		3,012	3,010	2
Total	10	3,012	3,010	2
Cumulative Total		36,891	32,709	4,182

Institution name
University of Texas, Austin
University of Texas, Houston Medical School
University of Texas, Southwestern Medical School
University of Texas, Galveston Medical School
University of Texas, San Antonio Medical School
Total
Stanford University
Stanford University School of Medicine
Total
Pennsylvania State University
Pennsylvania State University College of Medicine
Total
University of Maryland
University of Maryland School of Medicine
Total
Purdue University
Total
Northeastern University
Total
Cornell University
Cornell University Medical School
Total
University of Southern California
University of Southern California Medical School
Total
Columbia University
Columbia University College of Physicians and Surgeons
Total
Polytechnic Institute of Brooklyn
Total
Cumulative Total

I-15. List of top 100 institutions, including affiliated medical schools, ranked on basis of total graduate enrollment. 1973

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
		5,213	5,066	147
	1	5,213	5,066	147
		3,799	3,518	281
		585	486	99
	2	4,385	4,004	380
		3,339	2,843	496
		594	560	34
	3	3,933	3,403	530
		3,539	3,350	189
		304	295	9
	4	3,843	3,645	198
		3,434	1,577	1,857
y		92	91	1
	5	3,526	1,668	1,858
		3,303	2,804	499
e		221	199	22
	6	3,524	3,003	521
		3,051	2,903	148
		296	288	8
	7	3,347	3,191	156
		2,771	2,586	185
icine		286	262	24
	8	3,057	2,848	209
		2,839	2,666	173
		213	205	8
	9	3,052	2,871	181
		3,012	3,010	2
	10	3,012	3,010	2
		36,891	32,709	4,182

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
University of Texas, Austin		2,624	2,406	218
University of Texas, Houston Medical School		144	144	0
University of Texas, Southwestern Medical School		91	80	11
University of Texas, Galveston Medical School		67	57	10
University of Texas, San Antonio Medical School		50	46	4
Total	11	2,976	2,733	243
Stanford University		2,871	2,636	235
Stanford University School of Medicine		99	97	2
Total	12	2,970	2,733	237
Pennsylvania State University		2,885	2,162	723
Pennsylvania State University College of Medicine		71	71	0
Total	13	2,956	2,233	723
University of Maryland		2,867	1,620	1,247
University of Maryland School of Medicine		85	85	0
Total	14	2,952	1,705	1,247
Purdue University		2,888	2,694	194
Total	15	2,888	2,694	194
Northeastern University		2,851	876	1,975
Total	16	2,851	876	1,975
Cornell University		2,574	2,557	17
Cornell University Medical School		77	76	1
Total	17	2,651	2,633	18
University of Southern California		2,277	1,405	872
University of Southern California Medical School		132	113	19
Total	18	2,409	1,518	891
Columbia University		2,041	1,593	448
Columbia University College of Physicians and Surgeons		365	282	83
Total	19	2,406	1,875	531
Polytechnic Institute of Brooklyn		2,347	409	1,938
Total	20	2,347	409	1,938
Cumulative Total		64,297	52,118	12,179

Table I-15.—Con.

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
University of Washington		2,052	1,680	372
University of Washington School of Medicine		242	238	4
Total	21	2,294	1,918	376
University of Oklahoma		2,144	963	1,181
University of Oklahoma College of Medicine		137	119	18
Total	22	2,281	1,082	1,199
Texas A&M University		2,161	1,790	371
Total	23	2,161	1,790	371
University of Tennessee		2,007	1,395	612
University of Tennessee College of Medicine		126	102	24
Total	24	2,133	1,497	636
University of Florida		1,999	1,691	308
University of Florida College of Medicine		88	79	9
Total	25	2,087	1,770	317
City University of New York Graduate Division		2,002	1,430	572
Mount Sinai School of Medicine, City University of New York		56	51	5
Total	26	2,058	1,481	577
University of Arizona		1,965	1,707	258
University of Arizona College of Medicine		82	79	3
Total	27	2,047	1,786	261
Indiana University		1,604	1,355	249
Indiana University School of Medicine		288	254	34
Total	28	1,892	1,609	283
New School for Social Research		1,883	523	1,360
Total	29	1,883	523	1,360
Iowa State University		1,878	1,622	256
Total	30	1,878	1,622	256
Cumulative Total		85,011	67,196	17,815

Institution name	Rank
Wayne State University	
Wayne State University School of Medicine	
Total	31
University of California, Davis	
University of California, Davis Medical School	
Total	32
University of Colorado	
University of Colorado School of Medicine	
Total	33
University of Connecticut	
University of Connecticut School of Medicine	
Total	34
University of Pittsburgh	
University of Pittsburgh School of Medicine	
Total	35
University of Massachusetts	
University of Massachusetts Medical School	
Total	36
State University of New York at Buffalo	
State University of New York at Buffalo, School of Medicine	
Total	37
New York University	
New York University School of Medicine	
Total	38
Syracuse University	
Total	39
University of Pennsylvania	
University of Pennsylvania School of Medicine	
Total	40
Cumulative Total	

Rank	Graduate enrollment Total	Full-time	Part-time
	2,052	1,680	372
	242	238	4
21	2,294	1,918	376
	2,144	963	1,181
	137	119	18
22	2,281	1,082	1,199
	2,161	1,790	371
23	2,161	1,790	371
	2,007	1,395	612
	126	102	24
24	2,133	1,497	636
	1,999	1,691	308
	88	79	9
25	2,087	1,770	317
	2,002	1,430	572
	56	51	5
26	2,058	1,481	577
	1,965	1,707	258
	82	79	3
27	2,047	1,786	261
	1,604	1,355	249
	288	254	34
28	1,892	1,609	283
	1,883	523	1,360
29	1,883	523	1,360
	1,878	1,622	256
30	1,878	1,622	256
	85,011	67,196	17,815

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
Wayne State University		1,658	906	752
Wayne State University School of Medicine		197	157	40
Total	31	1,855	1,063	792
University of California, Davis		1,823	1,720	103
University of California, Davis Medical School		25	25	0
Total	32	1,848	1,745	103
University of Colorado		1,661	1,477	184
University of Colorado School of Medicine		179	170	9
Total	33	1,840	1,647	193
University of Connecticut		1,650	1,323	327
University of Connecticut School of Medicine		28	28	0
Total	34	1,678	1,351	327
University of Pittsburgh		1,607	966	641
University of Pittsburgh School of Medicine		70	68	2
Total	35	1,677	1,034	643
University of Massachusetts		1,648	1,488	160
University of Massachusetts Medical School		0	0	0
Total	36	1,648	1,488	160
State University of New York at Buffalo		1,445	1,075	370
State University of New York at Buffalo, School of Medicine		202	171	31
Total	37	1,647	1,246	401
New York University		1,488	490	998
New York University School of Medicine		156	104	52
Total	38	1,644	594	1,050
Syracuse University		1,642	984	658
Total	39	1,642	984	658
University of Pennsylvania		1,421	1,167	254
University of Pennsylvania School of Medicine		162	150	12
Total	40	1,583	1,317	266
Cumulative Total		102,073	79,665	22,408

Table I-15.—Con.

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
University of Kansas		1,502	1,239	263
University of Kansas School of Medicine		65	64	1
Total	41	1,567	1,303	264
George Washington University		1,366	376	990
George Washington University Medical School		182	134	48
Total	42	1,548	510	1,038
North Carolina State University, Raleigh		1,531	1,232	299
Total	43	1,531	1,232	299
Virginia Polytechnic Institute		1,524	1,055	469
Total	44	1,524	1,055	469
Harvard University		1,331	1,327	4
Harvard University Medical School		158	158	0
Total	45	1,489	1,485	4
University of Hawaii		1,360	1,249	111
University of Hawaii School of Medicine		122	113	9
Total	46	1,482	1,362	120
State University of New York, Stony Brook		1,402	1,047	355
State University of New York, Stony Brook School of Medicine		53	49	4
Total	47	1,455	1,096	359
University of Missouri, Columbia		1,368	1,053	315
University of Missouri, Columbia School of Medicine		85	80	5
Total	48	1,453	1,133	320
University of Chicago		1,208	1,138	70
University of Chicago Pritzker School of Medicine		245	238	7
Total	49	1,453	1,376	77
University of Iowa		1,177	958	219
University of Iowa College of Medicine		274	263	11
Total	50	1,451	1,221	230
Cumulative Total		117,026	91,438	25,588

Institution name
Arizona State University
Total
University of Cincinnati
University of Cincinnati College of Medicine
Total
Colorado State University
Total
Oregon State University
Total
Yale University
Yale University Medical School
Total
University of North Carolina, Chapel Hill
University of North Carolina Medical School, Chapel Hill
Total
Temple University
Temple University School of Medicine
Total
Columbia University Teachers College
Total
University of Georgia
Total
Washington State University
Total
Cumulative Total

	Graduate enrollment		
Rank	Total	Full-time	Part-time
	1,502	1,239	263
	65	64	1
41	1,567	1,303	264
	1,366	376	990
school	182	134	48
42	1,548	510	1,038
	1,531	1,232	299
43	1,531	1,232	299
	1,524	1,055	469
44	1,524	1,055	469
	1,331	1,327	4
	158	158	0
45	1,489	1,485	4
	1,360	1,249	111
	122	113	9
46	1,482	1,362	120
	1,402	1,047	355
	53	49	4
47	1,455	1,096	359
	1,368	1,053	315
	85	80	5
48	1,453	1,133	320
	1,208	1,138	70
	245	238	7
49	1,453	1,376	77
	1,177	958	219
	274	263	11
50	1,451	1,221	230
	117,026	91,438	25,588

Institution name	Graduate enrollment			
	Rank	Total	Full-time	Part-time
Arizona State University		1,440	946	494
Total	51	1,440	946	494
University of Cincinnati		1,230	862	368
University of Cincinnati College of Medicine		192	160	32
Total	52	1,422	1,022	400
Colorado State University		1,391	1,213	178
Total	53	1,391	1,213	178
Oregon State University		1,323	1,181	142
Total	54	1,323	1,181	142
Yale University		1,100	1,092	8
Yale University Medical School		207	206	1
Total	55	1,307	1,298	9
University of North Carolina, Chapel Hill		1,121	1,080	41
University of North Carolina Medical School, Chapel Hill		156	150	6
Total	56	1,277	1,230	47
Temple University		1,097	793	304
Temple University School of Medicine		163	142	21
Total	57	1,260	935	325
Columbia University Teachers College		1,255	671	584
Total	58	1,255	671	584
University of Georgia		1,224	1,161	63
Total	59	1,224	1,161	63
Washington State University		1,204	1,026	178
Total	60	1,204	1,026	178
Cumulative Total		130,129	102,121	28,008

Table 1-15.—Con.

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
University of Utah		1,114	863	251
University of Utah College of Medicine		89	85	4
Total	61	1,203	948	255
Johns Hopkins University		669	643	26
Johns Hopkins University School of Hygiene and Public Health		430	355	75
Johns Hopkins University School of Medicine		89	89	0
Total	62	1,188	1,087	101
Oklahoma State University		1,181	983	198
Total	63	1,181	983	198
Georgia Institute of Technology		1,144	857	287
Total	64	1,144	857	287
St. Johns University, New York		1,141	462	679
Total	65	1,141	462	679
Northwestern University		1,025	961	64
Northwestern University Medical School		98	89	9
Total	66	1,123	1,050	73
Rensselaer Polytechnic Institute		1,111	727	384
Total	67	1,111	727	384
University of Kentucky		1,036	864	172
University of Kentucky College of Medicine		56	55	1
Total	68	1,092	919	173
Case Western Reserve University		849	602	247
Case Western Reserve University School of Medicine		237	223	14
Total	69	1,086	825	261
University of Nebraska		987	756	231
University of Nebraska College of Medicine		80	23	57
Total	70	1,067	779	288
Cumulative Total		141,465	110,758	30,707

Institution name	Rank
Louisiana State University	
Louisiana State University, New Orleans Medical School	
Louisiana State University, Shreveport Medical School	
Total	71
Florida State University	
Total	72
California State University, San Diego	
Total	73
State University of New York at Binghamton	
Total	74
University of Virginia	
University of Virginia School of Medicine	
Total	75
Kansas State University	
Total	76
University of Rochester	
University of Rochester School of Medicine and Dentistry	
Total	77
Princeton University	
Total	78
University of Wisconsin-Milwaukee	
Total	79
University of Houston	
Total	80
Cumulative Total	

Rank	Graduate enrollment Total	Full-time	Part-time
	1,114	863	251
	89	85	4
61	1,203	948	255
	669	643	26
	430	355	75
	89	89	0
62	1,188	1,087	101
	1,181	983	198
63	1,181	983	198
	1,144	857	287
64	1,144	857	287
	1,141	462	679
65	1,141	462	679
	1,025	961	64
	98	89	9
66	1,123	1,050	73
	1,111	727	384
67	1,111	727	384
	1,036	864	172
	56	55	1
68	1,092	919	173
	849	602	247
	237	223	14
69	1,086	825	261
	987	756	231
	80	23	57
70	1,067	779	288
	141,465	110,758	30,707

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
Louisiana State University		1,002	855	147
Louisiana State University, New Orleans Medical School		53	47	6
Louisiana State University, Shreveport Medical School		7	7	0
Total	71	1,062	909	153
Florida State University		1,012	958	54
Total	72	1,012	958	54
California State University, San Diego		1,010	401	609
Total	73	1,010	401	609
State University of New York at Binghamton		1,005	550	455
Total	74	1,005	550	455
University of Virginia		876	772	104
University of Virginia School of Medicine		113	113	0
Total	75	989	885	104
Kansas State University		980	812	168
Total	76	980	812	168
University of Rochester		694	616	78
University of Rochester School of Medicine and Dentistry		280	258	22
Total	77	974	874	100
Princeton University		953	953	0
Total	78	953	953	0
University of Wisconsin-Milwaukee		950	646	304
Total	79	950	646	304
University of Houston		948	618	330
Total	80	948	618	330
Cumulative Total		151,348	118,365	32,983

Table I-15.—Con.

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
Newark College of Engineering		942	120	822
Total	81	942	120	822
University of California, San Diego		891	863	28
University of California, San Diego Medical School		47	47	0
Total	82	938	910	28
University of Akron		932	314	618
Total	83	932	314	618
University of Missouri, Rolla		926	491	435
Total	84	926	491	435
University of Rhode Island		914	626	288
Total	85	914	626	288
Washington University		815	685	130
Washington University School of Medicine		97	95	2
Total	86	912	780	132
West Virginia University		809	683	126
West Virginia University School of Medicine		101	87	14
Total	87	910	770	140
Duke University		689	634	55
Duke University School of Medicine		205	189	16
Total	88	894	823	71
University of California, Santa Barbara		890	784	106
Total	89	890	784	106
University of New Mexico		836	525	311
University of New Mexico School of Medicine		33	31	2
Total	90	869	556	313
Cumulative Total		160,475	124,538	35,937

Institution name
Illinois Institute of Technology
Total
American University
Total
Naval Postgraduate School
Total
University of South Carolina
Total
University of Oregon
University of Oregon Medical School
Total
Southern Methodist University
Total
University of Delaware
Total
Boston University
Boston University School of Medicine
Total
Stevens Institute of Technology
Total
Texas Tech University
Total
Top 100 total
All other institutions, total
All institutions, total

	Rank	Graduate enrollment Total	Full-time	Part-time
		942	120	822
	81	942	120	822
		891	863	28
		47	47	0
	82	938	910	28
		932	314	618
	83	932	314	618
		926	491	435
	84	926	491	435
		914	626	288
	85	914	626	288
		815	685	130
cine		97	95	2
	86	912	780	132
		809	683	126
icine		101	87	14
	87	910	770	140
		689	634	55
		205	189	16
	88	894	823	71
		890	784	106
	89	890	784	106
		836	525	311
		33	31	2
	90	869	556	313
		160,475	124,538	35,937

Institution name	Rank	Graduate enrollment Total	Full-time	Part-time
Illinois Institute of Technology		866	426	440
Total	91	866	426	440
American University		858	206	652
Total	92	858	206	652
Naval Postgraduate School		852	852	0
Total	93	852	852	0
University of South Carolina		850	608	242
Total	94	850	608	242
University of Oregon		787	713	74
University of Oregon Medical School		44	44	0
Total	95	831	757	74
Southern Methodist University		829	349	480
Total	96	829	349	480
University of Delaware		782	449	333
Total	97	782	449	333
Boston University		752	529	223
Boston University School of Medicine		29	6	23
Total	98	781	535	246
Stevens Institute of Technology		775	145	630
Total	99	775	145	630
Texas Tech University		760	619	141
Total	100	760	619	141
Top 100 total		168,659	129,484	39,175
All other institutions, total		49,303	34,834	14,469
All institutions, total		217,962	164,318	53,644

APPENDIX II

Classification of Institutions in Survey

The 339 science doctorate institutions listed here may
elsewhere for the following principal reasons: (1) Difference
other organizational components of university systems; (2) v
engineering fields; (3) differences in the time period covered
longer period), and (4) differences in classifications based o
degree granted respectively, in a particular period. Symbols be
classifications: 1) "First 20" refer to institutions chosen most
through 1973; 2) D—"Developing" institutions, those which g
M—"Medical Schools"; 4) I—"Intermediate," all remainin
science.

The institutions participating in the survey were classifie

(1) *"First 20."* These institutions were selected by the m
period 1968-73. The NSF Graduate Fellowship Progra
then select which graduate institutions they wish to
process, the number of Fellows in each year was totale
in rank order.

(2) *Developing.* The 85 institutions that began awarding s
were considered to be developing graduate insti
comparison were provided by the Office of Educati

(3) *Medical.* The 104 medical schools that awarded scien
institutions were tabulated in 1973 so that their c
comparative purposes. Since data from medical scho
they were in 1973, this category cannot be as meanin

(4) *Intermediate.* The 130 remaining schools that s
"Intermediate."

APPENDIX II

fication of Institutions in Survey

The 339 science doctorate institutions listed here may differ from similar listings published elsewhere for the following principal reasons. (1) Differences in classifying branches, affiliates, or other organizational components of university systems, (2) variations in definitions of science and engineering fields, (3) differences in the time period covered by the classification (e.g., single year or longer period), and (4) differences in classifications based on level of degree offered or level of degree granted respectively, in a particular period. Symbols behind each name refer to the following classifications. 1) "First 20" refer to institutions chosen most frequently by NSF Fellows from 1968 through 1973, 2) D—"Developing" institutions, those which granted science Ph.D.'s after 1960-61, 3) M—"Medical Schools"; 4) I—"Intermediate," all remaining institutions granting doctorates in science.

The institutions participating in the survey were classified as follows:

(1) *"First 20."* These institutions were selected by the most number of NSF Fellows during the period 1968-73. The NSF Graduate Fellowship Program awards its stipends to individuals who then select which graduate institutions they wish to attend. On the basis of this selection process, the number of Fellows in each year was totaled and the institutions were then placed in rank order.

(2) *Developing.* The 85 institutions that began awarding science Ph.D.'s in academic year 1960-61 were considered to be developing graduate institutions for this report. Data for this comparison were provided by the Office of Education.

(3) *Medical.* The 104 medical schools that awarded science Ph.D.'s separately from their parent institutions were tabulated in 1973 so that their characteristics could be examined for comparative purposes. Since data from medical schools were not as representative in 1972 as they were in 1973, this category cannot be as meaningfully analyzed as the other categories.

(4) *Intermediate.* The 130 remaining schools that supplied data for 1973 were termed "Intermediate."

ALABAMA

Auburn University-I
University of Alabama, Tuscaloosa-I
University of Alabama Medical School-M
University of Alabama, Birmingham-D

ALASKA

University of Alaska-I

ARIZONA

Arizona State University-D
University of Arizona-I
University of Arizona College of Medicine-M

ARKANSAS

University of Arkansas-I
University of Arkansas Medical School-M

CALIFORNIA

California Institute of Technology-First 20
California State University, San Diego-D
Claremont Graduate School and University Center-I
Loma Linda University-D
Loma Linda School of Medicine-M
Naval Postgraduate School-I
Stanford University-First 20
Stanford University School of Medicine-M
University of California, Berkeley-First 20
University of California, Davis-I
University of California, Davis Medical School-M
University of California, Irvine-D
University of California, Irvine Medical School-M
University of California, Los Angeles-First 20
University of California, Los Angeles-Medical School-M
University of California, Riverside-D
University of California, San Diego-First 20
University of California, San Diego School of Medicine-M
University of California, San Francisco Medical School-M
University of California, Santa Barbara-D
University of California, Santa Cruz-D
University of the Pacific-D
University of Santa Clara-D
University of Southern California-I
University of Southern California Medical School-M
U.S. International University, California Western-D

COLORADO

Colorado School of Mines-I
Colorado State University-I
University of Colorado-I
University of Colorado Medical School-M
University of Denver-I
University of Northern Colorado-D

CONNECTICUT

University of Connecticut-I
University of Connecticut School of Medicine-M
Wesleyan University-D
Yale University-First 20
Yale University Medical School-M

DELAWARE

University of Delaware-I

DISTRICT OF COLUMBIA

American University-I
Catholic University-I
Georgetown University-I
Georgetown University Medical School-M
George Washington University-I
George Washington University Medical School-I
Howard University-I
Howard University Medical School-M

FLORIDA

Florida Institute of Technology-D
Florida State University-I
Nova University-D
University of Florida-I
University of Florida College of Medicine-M
University of Miami-I
University of Miami School of Medicine-M
University of South Florida-D

GEORGIA

Atlanta University-D
Emory University-I
Emory University School of Medicine-M
Georgia Institute of Technology-I
Georgia State University-D
Medical College of Georgia School of Medicine-M
University of Georgia-I

HAWAII

University of Hawaii-I
University of Hawaii School of Medicine-M

IDAHO

Idaho State Univer
University of Idaho

ILLINOIS

Depaul University-
Illinois Institute of
Illinois State Univer
Loyola University-I
Loyola University,
Northern Illinois U
Northwestern Univ
Northwestern Univ
Southern Illinois U
University of Chica
University of Chica
University of Healt
University of Illino
University of Illino
University of Illino

INDIANA

Ball State University
Indiana State Univ
Indiana University-
Indiana University
Purdue University-
University of Notre

IOWA

Iowa State Univers
University of Iowa-
University of Iowa

KANSAS

Kansas State Univer
University of Kansa
University of Kansa
Wichita State Univ

KENTUCKY

University of Kentu
University of Kentu
University of Louis
University of Louis

University of Colorado-I
University of Colorado Medical School-M
University of Denver-I
University of Northern Colorado-D

CONNECTICUT

University of Connecticut-I
University of Connecticut School of Medicine-M
Wesleyan University-D
Yale University-First 20
Yale University Medical School-M

DELAWARE

University of Delaware-I

DISTRICT OF COLUMBIA

American University-I
Catholic University-I
Georgetown University-I
Georgetown University Medical School-M
George Washington University-I
George Washington University Medical School-I
Howard University-I
Howard University Medical School-M

FLORIDA

Florida Institute of Technology-D
Florida State University-I
Nova University-D
University of Florida-I
University of Florida College of Medicine-M
University of Miami-I
University of Miami School of Medicine-M
University of South Florida-D

GEORGIA

Atlanta University-D
Emory University-I
Emory University School of Medicine-M
Georgia Institute of Technology-I
Georgia State University-D
Medical College of Georgia School of Medicine-M
University of Georgia-I

HAWAII

University of Hawaii-I
University of Hawaii School of Medicine-M

IDAHO

Idaho State University-D
University of Idaho-D

ILLINOIS

Depaul University-D
Illinois Institute of Technology-I
Illinois State University-D
Loyola University-I
Loyola University, Chicago Stritch Medical School-M
Northern Illinois University-D
Northwestern University-I
Northwestern University Medical School-M
Southern Illinois University-I
University of Chicago-First 20
University of Chicago Pritzker School of Medicine-M
University of Health Sciences, Chicago Medical School-M
University of Illinois, Chicago Circle-D
University of Illinois College of Medicine-M
University of Illinois, Urbana-First 20

INDIANA

Ball State University-D
Indiana State University-D
Indiana University-I
Indiana University School of Medicine-M
Purdue University-First 20
University of Notre Dame-I

IOWA

Iowa State University-I
University of Iowa-I
University of Iowa College of Medicine-M

KANSAS

Kansas State University-I
University of Kansas-I
University of Kansas School of Medicine-M
Wichita State University-D

KENTUCKY

University of Kentucky-I
University of Kentucky College of Medicine-M
University of Louisville-I
University of Louisville School of Medicine-I

LOUISIANA

Louisiana State University, Baton Rouge-I
Louisiana State University, New Orleans Medical School-M
Louisiana State University, Shreveport Medical School-M
Louisiana State University, New Orleans-D
Louisiana Technological University-D
Loyola University-D
Tulane University-I
Tulane University Medical School-M
University of Southwestern Louisiana-D

MAINE

University of Maine-I

MARYLAND

Johns Hopkins University-First 20
Johns Hopkins University School of Medicine-M
Johns Hopkins University School of Hygiene and Public Health-M
University of Maryland-I
University of Maryland School of Medicine-M

MASSACHUSETTS

Boston College-I
Boston University-I
Boston University School of Medicine-M
Brandeis University-I
Clark University-I
Harvard University-First 20
Harvard University Medical School-M
Lowell Technological Institute-D
Massachusetts College of Pharmacy-I
Massachusetts Institute of Technology-First 20
Northeastern University-D
Smith College-D
Tufts University-I
Tufts University School of Medicine-M
University of Massachusetts-I
University of Massachusetts Medical School-M
Woods Hole Oceanographic Institute-D
Worcester Polytechnic Institute-D

MICHIGAN

Michigan State University-I
Michigan State University College of Medicine-M
Michigan Technological University-D
University of Detroit-D
University of Michigan-First 20
University of Michigan Medical School-M
Wayne State University-I
Wayne State University School of Medicine-M
Western Michigan University-D

MINNESOTA

University of Minnesota-I
University of Minnesota, Minneapolis Medical School-M

MISSISSIPPI

Mississippi State University-I
University of Mississippi-I
University of Mississippi School of Medicine-M
University of Southern Mississippi-D

MISSOURI

St. Louis University-I
St. Louis University School of Medicine-M
University of Missouri, Columbia-I
University of Missouri, Columbia School of Medicine-M
University of Missouri, Kansas City-D
University of Missouri, Rolla-I
Washington University-I
Washington University School of Medicine-M

MONTANA

Montana State University-I
University of Montana-D

NEBRASKA

Creighton University School of Medicine-M
University of Nebraska-I
University of Nebraska College of Medicine-M

NEVADA

University of Nevada, Reno-D

NEW HAMPSHIRE

Dartmouth College-D
Dartmouth Medical School-M
University of New Hampshire-I

NEW JERSEY

College of Medicine an
of New Jersey-M
Newark College of Engi
Princeton University-Fir
Rutgers, The State Univ
Rutgers College of Med
Dentistry-M
Seton Hall University-D
Stevens Institute of Tec

NEW MEXICO

New Mexico Institute o
and Technology-D
New Mexico State Univ
University of New Mex
University of New Mex

NEW YORK

Adelphi University-I
Alfred University-I
City University of New
City University of New
City University of New
Clarkson College of Te
Columbia University-Fi
Columbia University C
Pharmaceutical Scien
Columbia University C
and Surgeons-M
Columbia University Te
Cooper Union-D
Cornell University-First
Cornell University Med
Fordham University-I
Hofstra University-D
Mount Sinai School of
of New York-M
New School for Social
New York Medical Col
New York University-I
New York University o
Polytechnic Institute of
Rensselaer Polytechnic
Rockefeller University-
St. Bonaventure Univer
St. Johns University-I
State University of New
State University of New
State University of New
State University of New
School of Medicine-

University of Michigan Medical School-M
Wayne State University-I
Wayne State University School of Medicine-M
Western Michigan University-D

MINNESOTA

University of Minnesota-I
University of Minnesota, Minneapolis Medical School-M

MISSISSIPPI

Mississippi State University-I
University of Mississippi-I
University of Mississippi School of Medicine-M
University of Southern Mississippi-D

MISSOURI

St. Louis University-I
St. Louis University School of Medicine-M
University of Missouri, Columbia-I
University of Missouri, Columbia School of Medicine-M
University of Missouri, Kansas City-D
University of Missouri, Rolla-I
Washington University-I
Washington University School of Medicine-M

MONTANA

Montana State University-I
University of Montana-D

NEBRASKA

Creighton University School of Medicine-M
University of Nebraska-I
University of Nebraska College of Medicine-M

NEVADA

University of Nevada, Reno-D

NEW HAMPSHIRE

Dartmouth College-D
Dartmouth Medical School-M
University of New Hampshire-I

NEW JERSEY

College of Medicine and Dentistry of New Jersey-M
Newark College of Engineering-D
Princeton University-First 20
Rutgers, The State University-I
Rutgers College of Medicine and Dentistry-M
Seton Hall University-D
Stevens Institute of Technology-I

NEW MEXICO

New Mexico Institute of Mining and Technology-D
New Mexico State University-I
University of New Mexico-I
University of New Mexico School of Medicine-M

NEW YORK

Adelphi University-I
Alfred University-I
City University of New York, Brooklyn College-D
City University of New York, City College-D
City University of New York Graduate Division-D
Clarkson College of Technology-D
Columbia University-First 20
Columbia University College of Pharmaceutical Sciences-I
Columbia University College of Physicians and Surgeons-M
Columbia University Teachers College-D
Cooper Union-D
Cornell University-First 20
Cornell University Medical School-M
Fordham University-I
Hofstra University-D
Mount Sinai School of Medicine, City University of New York-M
New School for Social Research-I
New York Medical College-M
New York University-I
New York University of Medicine-M
Polytechnic Institute of Brooklyn-I
Rensselaer Polytechnic Institute-I
Rockefeller University-First 20
St. Bonaventure University-I
St. Johns University-I
State University of New York at Albany-D
State University of New York at Binghamton-D
State University of New York at Buffalo-I
State University of New York at Buffalo, School of Medicine-M

New York—con.

State University of New York, College of Environmental Science and Forestry-I
State University of New York, Downstate Medical Center-M
State University of New York, Stony Brook-D
State University of New York, Stony Brook School of Medicine-M
State University of New York, Upstate College of Medicine-M
Syracuse University-I
Union College and University-I
Union University, Albany Medical College-M
University of Rochester-I
University of Rochester School of Medicine and Dentistry-M
Yeshiva University-I
Yeshiva University, Albert Einstein College of Medicine-M

NORTH CAROLINA

Duke University-I
Duke University School of Medicine-M
University of North Carolina, Chapel Hill-I
University of North Carolina, Greensboro-D
University of North Carolina Medical School-M
North Carolina State University, Raleigh-I
Wake Forest University-D
Wake Forest University, Bowman Gray School of Medicine-M

NORTH DAKOTA

North Dakota State University-D
University of North Dakota-I
University of North Dakota School of Medicine-M

OHIO

Air Force Institute of Technology-D
Bowling Green State University-D
Case Western Reserve University-I
Case Western Reserve University School of Medicine-M
Kent State University-D
Miami University-D
Ohio State University-I
Ohio State University College of Medicine-M
Ohio University-I
University of Akron-I
University of Cincinnati-I
University of Cincinnati College of Medicine-M
University of Dayton-D
University of Toledo-D

OKLAHOMA

Oklahoma State University-I
University of Oklahoma-I
University of Oklahoma College of Medicine-M
University of Tulsa-D

OREGON

Oregon Graduate Center-D
Oregon State University-I
Portland State University-D
University of Oregon-I
University of Oregon Medical School-M
University of Portland-I

PENNSYLVANIA

Bryn Mawr College-I
Carnegie-Mellon University-I
Drexel University-D
Duquesne University-I
Hahnemann Medical College and Hospital-M
Jefferson Medical College of Thomas Jefferson University-M
Lehigh University-I
The Medical College of Pennsylvania-M
Pennsylvania State University-I
Pennsylvania State University College of Medicine-M
Philadelphia College of Pharmacy and Science-I
Temple University-I
Temple University School of Medicine-M
University of Pennsylvania-First 20
University of Pennsylvania School of Medicine-M
University of Pittsburgh-I
University of Pittsburgh School of Medicine-M
Villanova University-D

RHODE ISLAND

Brown University-I
Brown University Division of Biological and Medical Sciences-M

Providence College
University of Rhod

SOUTH CAROL

Clemson University
Medical University
College of Medic
University of South

SOUTH DAKOT

South Dakota Sche
and Technology-I
South Dakota State
University of South
University of South
of Medicine-M

TENNESSEE

George Peabody C
Memphis State Uni
Meharry College Sc
University of Tenne
University of Tenne
of Medicine-M
Vanderbilt Universi
Vanderbilt Universi
of Medicine-M

TEXAS

Baylor University-I
Baylor College of M
North Texas State U
Rice University-I
Southern Methodis
Texas A&M Univers
Texas Christian Uni
Texas Tech Univers
Texas Woman's Uni
University of Houst
University of Texas,
University of Texas,
University of Texas,
University of Texas
Galveston-M
University of Texas,
Medical School-M
University of Texas
School-M

University of Cincinnati-I
University of Cincinnati College of Medicine-M
University of Dayton-D
University of Toledo-D

OKLAHOMA

Oklahoma State University-I
University of Oklahoma-I
University of Oklahoma College of Medicine-M
University of Tulsa-D

OREGON

Oregon Graduate Center-D
Oregon State University-I
Portland State University-D
University of Oregon-I
University of Oregon Medical School-M
University of Portland-I

PENNSYLVANIA

Bryn Mawr College-I
Carnegie-Mellon University-I
Drexel University-D
Duquesne University-I
Hahnemann Medical College and Hospital-M
Jefferson Medical College of Thomas Jefferson University-M
Lehigh University-I
The Medical College of Pennsylvania-M
Pennsylvania State University-I
Pennsylvania State University College of Medicine-M
Philadelphia College of Pharmacy and Science-I
Temple University-I
Temple University School of Medicine-M
University of Pennsylvania-First 20
University of Pennsylvania School of Medicine-M
University of Pittsburgh-I
University of Pittsburgh School of Medicine-M
Villanova University-D

RHODE ISLAND

Brown University-I
Brown University Division of Biological and Medical Sciences-M
Providence College-D
University of Rhode Island-I

SOUTH CAROLINA

Clemson University-D
Medical University of South Carolina College of Medicine-M
University of South Carolina-I

SOUTH DAKOTA

South Dakota School of Mines and Technology-D
South Dakota State University-I
University of South Dakota-I
University of South Dakota School of Medicine-M

TENNESSEE

George Peabody College-I
Memphis State University-D
Meharry College School of Medicine-M
University of Tennessee-I
University of Tennessee College of Medicine-M
Vanderbilt University-I
Vanderbilt University School of Medicine-M

TEXAS

Baylor University-I
Baylor College of Medicine-M
North Texas State University-D
Rice University-I
Southern Methodist University-D
Texas A&M University-I
Texas Christian University-D
Texas Tech University-I
Texas Woman's University-D
University of Houston-I
University of Texas, Arlington-D
University of Texas, Austin-I
University of Texas, Dallas-D
University of Texas, Houston Medical School-M
University of Texas Medical Branch, Galveston-M
University of Texas, San Antonio Medical School-M
University of Texas Southwestern Medical School-M

UTAH

Brigham Young University-I
University of Utah-I
University of Utah College of Medicine-M
Utah State University-I

VERMONT

University of Vermont-D
University of Vermont College of Medicine-M

VIRGINIA

College of William and Mary-D
Institute of Textile Technology-D
University of Virginia-I
University of Virginia School of Medicine-M
Virginia Commonwealth University-I
Virginia Commonwealth University Medical College of Virginia-M
Virginia Polytechnic Institute-I

WASHINGTON

University of Washington-First 20
University of Washington School of Medicine-M
Washington State University-I

WEST VIRGINIA

West Virginia University-I
West Virginia University School of Medicine-M

WISCONSIN

Lawrence University Institute of Paper Chemistry-I
Marquette University-I
Medical College of Wisconsin-M
University of Wisconsin, Madison-First 20
University of Wisconsin Medical School-M
University of Wisconsin-Milwaukee-I

WYOMING

University of Wyoming-I

PUERTO RICO

University of Puerto Rico School of Medicine-M
University of Puerto Rico, Rio Piedras-D

APPENDIX III

A Listing of Statistical Tables

APPENDIX III

tatistical Tables

ALL GRADUATE DEPARTMENTS. 1973

APPENDIX IV

Instructions and Consolidated Departmental Data Sheets

INSTRUCTIONS FOR COMPLETING THE DEPARTMENTAL DATA SHEET

GENERAL:

A Departmental Data Sheet (NSF Form 812) is to be completed by each science and engineering department that supplied similar data in our 1972 survey, plus any newly formed departments or any departments that were inadvertently omitted last year.

In addition, the National Institutes of Health has supplied a complete list of all basic science and clinical departments for reference by medical schools to improve coverage in these fields. If departments on this list do not actually enroll graduate students or have any postdoctoral appointees, please complete a Form 812 marked NONE and return to NSF.

A graduate student, whether full- or part-time, should be reported in only one department.

If a science department did not enroll graduate students in Fall 1973 but did have postdoctoral appointees, please write "NONE" across items 5 and 6 and move to item 7.

Care should be taken to submit as complete and accurate a report as possible in order that machine editing time can be reduced and more timely statistics can be made available.

This form is being mailed to all institutions of higher education in the U. S. that confer doctoral-level degrees in at least one of the following fields of science:

Engineering
- Aeronautical
- Agricultural
- Chemical
- Civil
- Electrical
- Engineering science
- Industrial
- Mechanical
- Metallurgical and materials
- Mining
- Nuclear
- Petroleum
- Other engineering

Physical sciences
- Astronomy
- Atmospheric sciences
- Chemistry
- Geosciences
- Oceanography
- Physics

Mathematical sciences
- Applied mathematics
- Mathematics
- Statistics

Life sciences
- Agriculture
- Anatomy
- Biochemistry
- Biology
- Biophysics
- Botany
- Clinical medical sciences
- Ecology
- Genetics
- Microbiology
- Pathology
- Pharmacology
- Physiology
- Zoology
- Other life sciences

Psychology
- Clinical psychology
- Experimental psychology
- Human development
- Physiological psychology
- Social psychology
- Other psychology

Social sciences
- Agricultural economics
- Anthropology
- Economics (except agricultural)
- Geography
- History and philosophy of science
- Linguistics
- Political science
- Sociology

Item 4—**Highest degree offered.** Check the box which refers to the highest degree offered by this science department in October 1973.

Item 5—A **full-time graduate student** is defined here as a student enrolled for an advanced degree (not a regular staff member, e.g., an instructor) who is engaged in training activities in his field of science; these activities may embrace any appropriate combination of study, teaching, and research, depending upon your institution's own policy. (Some institutions use the phrase "geographical full-time student" to describe such students.) All other graduate students enrolled for advanced degrees are considered part time and should be reported under Item 6. **Exclude** students who are not formally enrolled for study or dissertation and "special" or unclassified students taking courses at the graduate level but not enrolled for degrees.

Students are to be classified according to citizenship, i.e., **U.S.** citizens (or nationals, e.g., native residents of a possession of the U. S. such as American Samoa), and **foreign** students. Applicants for U. S. citizenship are to be considered as "foreign" until the date their citizenship becomes effective.

A **first-year** graduate student is defined as one who will have completed **less than a full year** of graduate study as of the beginning of the Fall term of 1973. All other students should be considered beyond first year.

Report the number of full-time graduate students in the appropriate column where they receive most of their support. If a graduate student receives stipend support from more than one source, choose the **major** source. For cases of two or more being enrolled for an advanced degree. For instance, graduate students supported by the AEC at Oak Ridge National Laboratory are enrolled for degree-credit at the University of Tennessee, Knoxville, and are to be included in the survey. Please note that support for graduate students by NIH, column (d), should **exclude** support from NIMH, which should be reported under "other, HEW," column (e).

"Institutional Support," column (j), refers to support from "this" institution, as well as from State and local governments. Students who are employees of an organization and whose major support is provided by their employer should be listed under column (l) "Other U.S. Sources." Those receiving most of their support from personal, family, and loan sources should be reported under column (m), "Self, Loans, and Family."

Item 6—The number of graduate students who are working for advanced degrees, but who are not pursuing graduate work full time as defined in Item 5, are enumerated under the entries for **part time.** Part-time graduate students who have completed less than a full year of study in Fall 1973 are counted in column (a), "First Year;" all other part-time students are to be counted under (b), "Beyond First."

Item 7—Under **Postdoctorals** and/or **Research Associates,** include individuals with science or engineering doctorates and M.D.'s (including foreign degrees that are equivalent to U.S. doctorates) who devote **full time** to research activities or study in the department under temporary appointments carrying no academic rank such as instructor or above. Such appointments are usually for a **specific time period.** They may contribute to the

a Form 612 marked NONE and return to NSF.

the following fields of science:

Engineering
- Aeronautical
- Agricultural
- Chemical
- Civil
- Electrical
- Engineering science
- Industrial
- Mechanical
- Metallurgical and materials
- Mining
- Nuclear
- Petroleum
- Other engineering

Physical sciences
- Astronomy
- Atmospheric sciences
- Chemistry
- Geosciences
- Oceanography
- Physics

Mathematical sciences
- Applied mathematics
- Mathematics
- Statistics

Life sciences
- Agriculture
- Anatomy
- Biochemistry
- Biology
- Biophysics
- Botany
- Clinical medical sciences
- Ecology
- Genetics
- Microbiology
- Pathology
- Pharmacology
- Physiology
- Zoology
- Other life sciences

Psychology
- Clinical psychology
- Experimental psychology
- Human development
- Physiological psychology
- Social psychology
- Other psychology

Social sciences
- Agricultural economics
- Anthropology
- Economics (except agricultural)
- Geography
- History and philosophy of science
- Linguistics
- Political science
- Sociology

Item 4—**Highest degree offered.** Check the box which refers to the highest degree offered by this science department in October 1973.

Item 5—A **full-time graduate student** is defined here as a student enrolled for an advanced degree (not a regular staff member, e.g., an instructor) who is engaged in training activities in his field of science; these activities may embrace any appropriate combination of study, teaching, and research, depending upon your institution's own policy. (Some institutions use the phrase "geographical full-time student" to describe such students.) All other graduate students enrolled for advanced degrees are considered part time and should be reported under Item 6. **Exclude** students who are not formally enrolled for study or dissertation and "special" or unclassified students taking courses at the graduate level but not enrolled for degrees.

Students are to be classified according to citizenship, i.e., **U.S. citizens** (or nationals, e.g., native residents of a possession of the U.S. such as American Samoa), and **foreign** students. Applicants for U. S. citizenship are to be considered as "foreign" until the date their citizenship becomes effective.

A **first-year** graduate student is defined as one who will have completed **less than a full year** of graduate study as of the beginning of the Fall term of 1973. All other students should be considered beyond first year.

Report the number of full-time graduate students in the appropriate column where they receive most of their support. If a graduate student receives stipend support from more than one source, choose the **major** source. For cases of two or more equivalent sources choose one **major** source category so that **using only whole numbers** the departmental data sheet will give a reasonably accurate **average** support picture for the department. Students receiving their **major** support from the Veterans Administration under the G.I. Bill should be reported under column (h), "Other U.S. Government;" if this form of support does not constitute his **major** source, the student should be counted in the appropriate column representing that source. Graduate students performing thesis or dissertation research at Government- and contractor-owned facilities are to be included as long as they are considered by the graduate dean as being enrolled for an advanced degree. For instance, graduate students supported by the AEC at Oak Ridge National Laboratory are enrolled for degree-credit at the University of Tennessee, Knoxville, and are to be included in the survey. Please note that support for graduate students by NIH, column (d), should **exlude** support from NIMH, which should be reported under "other, HEW," column (e).

"Institutional Support," column (j), refers to support from "This" institution, as well as from State and local governments. Students who are employees of an organization and whose major support is provided by their employer should be listed under column (l) "Other U.S. Sources." Those receiving most of their support from personal, family, and loan sources should be reported under column (m), "Self, Loans, and Family."

Item 6—The number of graduate students who are working for advanced degrees, but who are not pursuing graduate work full time as defined in Item 5, are enumerated under the entries for **part time.** Part-time graduate students who have completed less than a full year of study in Fall 1973 are counted in column (a), "First Year;" all other part-time students are to be counted under (b), "Beyond First."

Item 7—Under **Postdoctorals** and/or **Research Associates,** include individuals with science or engineering doctorates and M.D.'s (including foreign degrees that are equivalent to U.S. doctorates) who devote **full time** to research activities or study in the department under temporary appointments carrying no academic rank such as instructor or above. Such appointments are usually for a **specific time period.** They may contribute to the academic program through seminars, lectures, or working with graduate students. Their postdoctoral activities have an element of additional training for them. Exclude residents, unless research training under the supervision of a Senior Mentor is the prime purpose of the appointment. Under (a) enter the number of fellows and trainees receiving support under Federal training grants and/or fellowships. Under (b) enter the number of research associates appointed with Federal support. Those remaining appointees with non-Government support are to be entered under (c). Of the total in (d), enter in (e) the number receiving their Ph.D. or M.D. since 1969.

NSF Form 812, Oct. 73

NATIONAL SCIENCE FOUNDATION

SURVEY OF GRADUATE SCIENCE STUDENT SUPPORT, FALL 1973

DEPARTMENTAL DATA SHEET

OMB No 99-R0776
Approval expires
February 1974

Please return by December 31, 1973

(NOTE: Before filling out please read the instructions on the reverse)

1. Name and address of institution: _____
2. Science or Engineering Department (or unit) covered by this data sheet a/ _____
3. Person in Department (or unit) preparing this form: Name: _____ Tel: (A/C) _____
4. Highest degree program offered by Department (or unit) in Fall 1973 (CHECK ONE ONLY) Master's ____(1) Doctorate ____(2)

Department Code (Leave Blank)

5. Major Support sources (excluding tuition) of ALL FULL-TIME GRADUATE STUDENTS enrolled for Advanced Degrees (M.S. & Ph.D. in the Fall 1973. (see Item 5-instructions)

TYPE OF SUPPORT	CITIZ. & LEVEL		U.S. GOVERNMENT SOURCE (EXCLUDING LOANS)									NON-GOVERNMENT SOURCE					
			AEC	DOD	HEW NOEA	HEW NIH	HEW Other HEW	NASA	NSF	Other U.S. Govt.	Total U.S. Govt. (a-h)	Institutional Support b/	Foreign Sources	Other U.S. Sources c/	Self, Loans and Family	Total Non-U.S. Govt. (j-m)	Total (i)+(n)
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Fellowships and Traineeships	U.S.	(1)															
	Foreign	(2)															
	Subtotal	(3)															
Of line (3) How many were:	First Year	(4)															
	Beyond	(5)															
Graduate Research Assistantships	U.S.	(6)															
	Foreign	(7)															
	Subtotal	(8)															
Of line (8) How many were:	First Year	(9)															
	Beyond	(10)															
Graduate Teaching Assistantships	U.S.	(11)															
	Foreign	(12)															
	Subtotal	(13)															
Of line (13) How many were:	First Year	(14)															
	Beyond	(15)															
Other Types of Support	U.S.	(16)															
	Foreign	(17)															
	Subtotal	(18)															
Of line (18) How many were:	First Year	(19)															
	Beyond	(20)															
Add Subtotals of lines (3), (8), (13), & (18) All Types. Total		(21)															
Of line (21) how many are: Men	First Year	(22)															
	Beyond	(23)															
Women	First Year	(24)															
	Beyond	(25)															

6. PART-TIME GRADUATE STUDENTS enrolled for advanced degrees (do not include "special" students):

FALL 1973	
Men	
Women	

7. Postdoctorals and/or Research Associates

FALL 1973			
SOURCE of SUPPORT			TOTAL
U.S. GOVERNMENT	Non-U.S.		
			Of Col. (d), How many are recent doctorals
(a)	(b)	(c)	(d)

In the Fall 1973. (see item 5 instructions).				NDEA	NIH	Other HEW			Govt.	Govt. (a-h)	Support b/	Sources	U.S. Sources c/	Loans and Family	Non-U.S. Govt. (j)-(m)	(i)+(n)
TYPE OF SUPPORT	CITIZ. & LEVEL	(a)	(b)	(a)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Fellowships and Traineeships	U.S. (1)															
	Foreign (2)															
	Subtotal (3)															
Of line (3) How many were:	First Year (4)															
	Beyond (5)															
Graduate Research Assistantships	U.S. (6)															
	Foreign (7)															
	Subtotal (8)															
Of line (8) How many were:	First Year (9)															
	Beyond (10)															
Graduate Teaching Assistantships	U.S. (11)															
	Foreign (12)															
	Subtotal (13)															
Of line (13) How many were:	First Year (14)															
	Beyond (15)															
Other Types of Support	U.S. (16)															
	Foreign (17)															
	Subtotal (18)															
Of line (18) How many were:	First Year (19)															
	Beyond (20)															
Add Subtotals of lines (3), (8), (13), & (18) All Types, Total	(21)															
Of line (21) How many are: Men	First Year (22)															
	Beyond (23)															
Women	First Year (24)															
	Beyond (25)															

6. PART-TIME GRADUATE STUDENTS enrolled for advanced degrees (do not include "special" students):

FALL 1973		
First Year	Beyond First	Total
(a)	(b)	(c)

7. Postdoctorals and/or Research Associates:

FALL 1973				
SOURCE of SUPPORT			TOTAL	Of Col. (d), How many are recent doctorals d/
U.S. GOVERNMENT		Non-U.S. Govt.		
Fellowship/Traineeships	Research Associates			
(a)	(b)	(c)	(d)	(e)

a/ Include basic medical and clinical science departments.

b/ Include institutions and State and local governments.

c/ Include support from nonprofit institutions, industry, and all other U S sources

d/ Since 1969.

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-1
SUMMARY OF RESPONSES FROM
6,559 GRADUATE DEPARTMENTS

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Gove		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	s
Fellowships and traineeships	U.S.	184	327	1,643	6,906	2,985	49	2,538	2,462	17,094	8,416	106	
	Foreign		5	9	182	61	9		742	1,008	1,528	2,054	
	Subtotal	184	332	1,652	7,088	3,046	58	2,538	3,204	18,102	9,944	2,160	
	First year	58	185	152	855	862	18	640	1,407	4,177	4,027	854	
	Beyond	126	147	1,500	6,233	2,184	40	1,898	1,797	13,925	5,917	1,306	
Graduate research assistantships	U.S.	1,015	1,631	33	2,288	658	843	4,999	3,769	15,236	9,577		
	Foreign	315	771	4	673	102	307	1,922	1,334	5,428	2,521	157	
	Subtotal	1,330	2,402	37	2,961	760	1,150	6,921	5,103	20,664	12,098	157	
	First year	153	565	7	522	179	285	1,189	1,258	4,168	3,837	56	
	Beyond	1,177	1,837	30	2,439	581	865	5,732	3,835	16,496	8,261	101	
Graduate teaching assistantships	U.S.				40	66		68	88	262	35,878		
	Foreign				10	10		19	22	61	6,911		
	Subtotal				50	76		87	110	323	42,789		
	First year				14	26		29	49	118	14,217		
	Beyond				36	50		58	61	205	28,572		
Other types of support	U.S.	44	1,798	9	86	45	27	110	1,550	3,669	3,052		
	Foreign	4	190	0	12	3	9	26	194	438	565	1,343	
	Subtotal	48	1,988	9	98	48	36	136	1,744	4,107	3,617	1,343	
	First year	21	823	1	35	7	10	48	684	1,629	1,288	651	
	Beyond	27	1,165	8	63	41	26	88	1,060	2,478	2,329	692	
All types, total		1,562	4,722	1,698	10,197	3,930	1,244	9,682	10,161	43,196	68,448	3,660	1
Men	First year	216	1,531	116	991	664	295	1,631	2,991	8,435	18,346	1,401	
	Beyond	1,243	3,049	1,233	6,490	1,772	900	6,922	5,973	27,582	36,422	1,913	
Women	First year	16	42	44	435	410	18	275	417	1,657	5,023	160	
	Beyond	87	100	305	2,281	1,084	31	854	780	5,522	8,657	186	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
20,378	33,266	53,644

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total
4,595	6,691	5,072	16,358

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ence Student Support, Fall 1973
ental Data Sheet

TABLE IV-1
SUMMARY OF RESPONSES FROM 6,559 GRADUATE DEPARTMENTS

hip and el	U.S. Government Source (excl. loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	184	327	1,643	6,906	2,985	49	2,538	2,462	17,094	8,416	106	3,058		11,580	28,674
	5	9	182	61	9			742	1,008	1,528	2,054	871		4,453	5,461
l	184	332	1,652	7,088	3,046	58	2,538	3,204	18,102	9,944	2,160	3,929		16,033	34,135
	58	185	152	855	862	18	640	1,407	4,177	4,027	854	1,229		6,110	10,287
	126	147	1,500	6,233	2,184	40	1,898	1,797	13,925	5,917	1,306	2,700		9,923	23,848
	1,015	1,631	33	2,288	658	843	4,999	3,769	15,236	9,577		2,471		12,048	27,284
	315	771	4	673	102	307	1,922	1,334	5,428	2,521	157	721		3,399	8,827
l	1,330	2,402	37	2,961	760	1,150	6,921	5,103	20,664	12,098	157	3,192		15,447	36,111
	153	565	7	522	179	285	1,189	1,258	4,168	3,837	56	1,042		4,935	9,103
	1,177	1,837	30	2,439	581	865	5,732	3,835	16,496	8,261	101	2,150		10,512	27,008
				40	66		68	88	262	35,878		233		36,111	36,323
				10	10		19	22	61	6,911		50		6,961	7,022
l				50	76		87	110	323	42,789		283		43,072	43,395
				14	26		29	49	118	14,217		105		14,322	14,440
				36	50		58	61	205	28,572		178		28,750	28,955
	44	1,798	9	86	45	27	110	1,550	3,669	3,052		2,388	32,107	37,547	41,216
	4	190	0	12	3	9	26	194	438	565	1,343	327	6,788	9,023	9,461
l	48	1,988	9	98	48	36	136	1,744	4,107	3,617	1,343	2,715	38,895	46,570	50,677
	21	823	1	35	7	10	48	684	1,629	1,288	651	893	17,555	20,387	22,016
	27	1,165	8	63	41	26	88	1,060	2,478	2,329	692	1,822	21,340	26,183	28,661
	1,562	4,722	1,698	10,197	3,930	1,244	9,682	10,161	43,196	68,448	3,660	10,119	38,895	21,122	164,318
	216	1,531	116	991	664	295	1,631	2,991	8,435	18,346	1,401	2,736	13,394	35,877	44,312
	1,243	3,049	1,233	6,490	1,772	900	6,922	5,973	27,582	36,422	1,913	5,744	16,623	60,702	88,284
	16	42	44	435	410	18	275	417	1,657	5,023	160	533	4,161	9,877	11,534
	87	100	305	2,281	1,084	31	854	780	5,522	8,657	186	1,106	4,717	14,686	20,188

ime Graduate Students Fall 1973	
Beyond first	Total
33,266	53,644

nts
y, and all other U.S. sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government		Non-U.S. Government	Total	Recent doctorals[3]
Fellowships/ traineeships	Research associates			
4,595	6,691	5,072	16,358	9,612

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-2
SUMMARY OF RESPONSES FROM 926 G
DEPARTMENTS IN ENGINEERIN

Type of support	Citizenship and level	U S Government Source (excl: loans)									Non-Gov	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources
Fellowships and traineeships	U.S.	124	162	189	351	179	20	412	695	2,132	1,090	13
	Foreign		3	1	21	6	2		95	128	368	509
	Subtotal	124	165	190	372	185	22	412	790	2,260	1,458	522
	First year	55	108	13	45	124	10	142	538	1,035	773	238
	Beyond	69	57	177	327	61	12	270	252	1,225	685	284
Graduate research assistantships	U.S.	224	853	7	197	52	309	1,159	911	3,712	1,616	
	Foreign	134	564	1	99	33	218	987	729	2,765	951	27
	Subtotal	358	1,417	8	296	85	527	2,146	1,640	6,477	2,567	27
	First year	83	437	0	66	25	163	565	454	1,793	981	9
	Beyond	275	980	8	230	60	364	1,581	1,186	4,684	1,586	18
Graduate teaching assistantships	U.S.				4	6		9	21	40	3,242	
	Foreign				8	0		7	7	22	1,598	
	Subtotal				12	6		16	28	62	4,840	
	First year				4	2		8	14	28	2,035	
	Beyond				8	4		8	14	34	2,805	
Other types of support	U.S.	34	1,144	0	2	6	8	10	533	1,737	446	
	Foreign	4	161	0	0	0	7	9	42	223	202	587
	Subtotal	38	1,305	0	2	6	15	19	575	1,960	648	587
	First year	19	530	0	0	1	3	9	252	814	313	328
	Beyond	19	775	0	2	5	12	10	323	1,146	335	259
All types, total		520	2,887	198	682	282	564	2,593	3,033	10,759	9,513	1,136
Men	First year	150	1,058	11	106	143	171	703	1,218	3,560	3,956	563
	Beyond	355	1,792	181	538	128	384	1,824	1,729	6,926	5,274	545
Women	First year	7	17	2	9	9	5	21	40	110	146	12
	Beyond	8	20	4	29	7	4	45	46	163	137	16

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
9,645	10,904	20,549

Postdoctorals and/or Research Associ Fall 1973			
Source of support			
U.S. Government		Non-U.S Government	T
Fellowships/ traineeships	Research associates		
104	617	254	9

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

nce Student Support, Fall 1973
ntal Data Sheet

TABLE IV-2
SUMMARY OF RESPONSES FROM 926 GRADUATE DEPARTMENTS IN ENGINEERING

p)and	U.S. Government Source (excl. loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	124	162	189	351	179	20	412	695	2,132	1,090	13	728		1,831	3,963
		3	1	21	6	2		95	128	368	509	179		1,056	1,184
	124	165	190	372	185	22	412	790	2,260	1,458	522	907		2,887	5,147
	55	108	13	45	124	10	142	538	1,035	773	238	393		1,404	2,439
	69	57	177	327	61	12	270	252	1,225	685	284	514		1,483	2,708
	224	853	7	197	52	309	1,159	911	3,712	1,616		838		2,454	6,166
	134	564	1	99	33	218	987	729	2,765	951	27	405		1,383	4,148
	358	1,417	8	296	85	527	2,146	1,640	6,477	2,567	27	1,243		3,837	10,314
	83	437	0	66	25	163	565	454	1,793	981	9	470		1,460	3,253
	275	980	8	230	60	364	1,581	1,186	4,684	1,586	18	773		2,377	7,061
				4	6		9	21	40	3,242		41		3,283	3,323
				8	0		7	7	22	1,598		33		1,631	1,653
				12	6		16	28	62	4,840		74		4,914	4,976
				4	2		8	14	28	2,035		24		2,059	2,087
				8	4		8	14	34	2,805		50		2,855	2,889
	34	1,144	0	2	6	8	10	533	1,737	446		539	4,675	5,660	7,397
	4	161	0	0	0	7	9	42	223	202	587	95	2,761	3,645	3,868
	38	1,305	0	2	6	15	19	575	1,960	648	587	634	7,436	9,305	11,265
	19	530	0	0	1	3	9	252	814	313	328	341	3,960	4,942	5,756
	19	775	0	2	5	12	10	323	1,146	335	259	293	3,476	4,363	5,509
	520	2,887	198	682	282	564	2,593	3,033	10,759	9,513	1,136	2,858	7,486	20,943	31,702
	150	1,058	11	106	143	171	703	1,218	3,560	3,956	563	1,188	3,786	9,493	13,053
	355	1,792	181	538	123	384	1,824	1,729	6,926	5,274	545	1,592	3,343	10,754	17,680
	7	17	2	9	9	5	21	40	110	146	12	40	174	372	482
	8	20	4	29	7	4	45	46	163	137	16	38	133	324	487

me Graduate Students
Fall 1973

Beyond first	Total
10,904	20,549

and all other U S sources

Postdoctorals and/or Research Associates
Fall 1973

Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
104	617	254	975	616

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-3
SUMMARY OF RESPONSES FROM 713 GR
DEPARTMENTS IN THE PHYSICAL SCIE

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Gover		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	sc
Fellowships and traineeships	U.S.	24	30	292	212	15	5	549	153	1,280	1,188	20	
	Foreign		0	0	11	1	3		33	48	252	245	
	Subtotal	24	30	292	223	16	8	549	186	1,328	1,440	265	
	First year	1	11	13	4	3	1	124	79	236	546	94	
	Beyond	23	19	279	219	13	7	425	107	1,092	894	171	
Graduate research assistantships	U.S.	695	533	7	513	49	467	2,623	694	5,581	1,144		
	Foreign	149	145	0	160	13	80	674	137	1,358	305	25	
	Subtotal	844	678	7	673	62	547	3,297	831	6,939	1,449	25	
	First year	53	66	0	24	13	92	310	119	677	247	7	
	Beyond	791	612	7	649	49	455	2,987	712	6,262	1,202	18	
Graduate teaching assistantships	U.S.				0	3		11	2	16	9,286		
	Foreign				0	0		4	1	5	2,428		
	Subtotal				0	3		15	3	21	11,714		
	First year				0	0		6	1	7	4,298		
	Beyond				0	3		9	2	14	7,416		
Other types of support	U.S.	7	285	0	3	2	18	28	246	589	262		
	Foreign	0	10	0	0	0	2	4	2	18	61	123	
	Subtotal	7	295	0	3	2	20	32	248	607	323	123	
	First year	1	101	0	0	1	6	3	71	183	102	39	
	Beyond	6	194	0	3	1	14	29	177	424	221	84	
All types, total		875	1,003	299	899	83	575	3,893	1,268	8,695	14,926	413	
Men	First year	48	168	10	21	16	95	394	251	1,003	4,468	124	
	Beyond	775	778	249	754	57	454	3,175	924	7,166	8,511	259	
Women	First year	7	10	3	7	1	4	49	19	100	725	16	
	Beyond	45	47	37	117	9	22	275	74	626	1,222	14	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
1,084	3,424	4,508

Postdoctorals and/or Research Associate Fall 1973			
Source of support			
U.S. Government		Non-U.S. Government	Total
Fellowships/ traineeships	Research associates		
490	2,688	945	4,123

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U.S. sources
[3] Since 1969

ce Student Support, Fall 1973
ntal Data Sheet

TABLE IV-3
SUMMARY OF RESPONSES FROM 713 GRADUATE DEPARTMENTS IN THE PHYSICAL SCIENCES

and	U.S Government Source (excl. loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	24	30	292	212	15	5	549	153	1,280	1,188	20	473		1,681	2,961
	0	0	0	11	1	3		33	48	252	245	88		585	633
	24	30	292	223	16	8	549	186	1,328	1,440	265	561		2,266	3,594
	1	11	13	4	3	1	124	79	236	546	94	112		752	988
	23	19	279	219	13	7	425	107	1,092	894	171	449		1,514	2,606
	695	533	7	513	49	467	2,623	694	5,581	1,144		398		1,542	7,123
	149	145	0	160	13	80	674	137	1,358	305	25	67		397	1,755
	844	678	7	673	62	547	3,297	831	6,939	1,449	25	465		1,939	8,878
	53	66	0	24	13	92	310	119	677	247	7	79		333	1,010
	791	812	7	649	49	455	2,987	712	6,262	1,202	18	386		1,606	7,868
				0	3		11	2	16	9,286		41		9,327	9,343
				0	0		4	1	5	2,428		4		2,432	2,437
				0	3		15	3	21	11,714		45		11,759	11,780
				0	0		6	1	7	4,298		24		4,322	4,329
				0	3		9	2	14	7,416		21		7,437	7,451
	7	285	0	3	2	18	28	246	589	262		182	2,482	2,926	3,515
	0	10	0	0	0	2	4	2	18	61	123	15	481	680	698
	7	295	0	3	2	20	32	248	607	323	123	197	2,963	3,606	4,213
	1	101	0	0	1	6	3	71	183	102	39	57	1,018	1,216	1,399
	6	194	0	3	1	14	29	177	424	221	84	140	1,945	2,390	2,814
	875	1,003	299	899	83	575	3,893	1,268	8,895	14,926	413	1,268	2,963	19,570	28,465
	48	168	10	21	16	95	394	251	1,003	4,468	124	245	885	5,722	6,725
	775	778	249	754	57	454	3,175	924	7,166	8,511	259	908	1,729	11,407	18,573
	7	10	3	7	1	4	49	19	100	725	16	27	133	901	1,001
	45	47	37	117	9	22	275	74	626	1,222	14	88	216	1,540	2,166

e Graduate Students Fall 1973	
Beyond first	Total
3,424	4,508

nd all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
490	2,688	945	4,123	2,850

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-4
SUMMARY OF RESPONSES FROM 339 G
DEPARTMENTS IN THE MATHEMATICAL

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Go	
		AEC	DOD	HEW NDEA	HEW NIH	HEW Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources
Fellowships and traineeships	U.S.	0	21	110	67	9	2	337	37	583	533	6
	Foreign		1	0	1	0	0		10	12	131	146
	Subtotal	0	22	110	68	9	2	337	47	595	664	152
	First year	0	12	7	6	1	0	99	15	140	291	55
	Beyond	0	10	103	62	8	2	238	32	455	373	97
Graduate research assistantships	U.S.	25	142	1	39	4	5	294	79	589	344	
	Foreign	12	44	0	8	1	2	99	31	197	115	2
	Subtotal	37	186	1	47	5	7	393	110	786	459	2
	First year	3	37	0	14	1	4	87	19	165	125	1
	Beyond	34	149	1	33	4	3	306	91	621	334	1
Graduate teaching assistantships	U.S.				1	0		20	5	26	5,136	
	Foreign				0	0		6	0	6	1,017	
	Subtotal				1	0		26	5	32	6,153	
	First year				0	0		9	1	10	1,922	
	Beyond				1	0		17	4	22	4,231	
Other types of support	U.S.	0	135	0	1	0	1	16	91	244	191	
	Foreign	0	19	0	0	0	0	5	11	35	70	86
	Subtotal	0	154	0	1	0	1	21	102	279	261	86
	First year	0	77	0	0	0	1	11	54	143	79	38
	Beyond	0	77	0	1	0	0	10	48	136	182	48
All types, total		37	362	111	117	14	10	777	264	1,692	7,537	240
Men	First year	3	123	5	16	2	3	149	79	380	1,848	76
	Beyond	29	223	90	83	9	5	517	152	1,108	4,197	126
Women	First year	0	3	2	4	0	2	57	10	78	569	18
	Beyond	5	13	14	14	3	0	54	23	126	923	20

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
2,626	3,147	5,773

Postdoctorals and/or Research Assoc Fall 1973			
Source of support			
U.S. Government		Non-U.S. Government	T
Fellowships/ traineeships	Research associates		
32	62	51	1

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ience Student Support, Fall 1973
nental Data Sheet

TABLE IV-4
SUMMARY OF RESPONSES FROM 339 GRADUATE DEPARTMENTS IN THE MATHEMATICAL SCIENCES

ship and vel	U.S Government Source (excl. loans)									Non-Government Source					Grand total
			HEW							Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	0	21	110	67	9	2	337	37	583	533	6	107		646	229
	1	0	1	0	0	10	12		131	146	21		298	310	
tal	0	22	110	68	9	2	337	47	595	664	152	128		944	1,539
	0	12	7	6	1	0	99	15	140	291	55	36		382	522
	0	10	103	62	8	2	238	32	455	373	97	92		562	1,017
	25	142	1	39	4	5	294	79	589	344		17		361	950
	12	44	0	8	1	2	99	31	197	115	2	12		129	326
tal	37	186	1	47	5	7	393	110	786	459	2	29		490	1,276
	3	37	0	14	1	4	87	19	165	125	1	9		135	300
	34	149	1	33	4	3	306	91	621	334	1	20		355	976
				1	0		20	5	26	5,136		16		5,152	5,178
				0	0		6	0	6	1,017		1		1,018	1,024
tal				1	0		26	5	32	6,153		17		6,170	6,202
				0	0		9	1	10	1,922		7		1,929	1,939
				1	0		17	4	22	4,231		10		4,241	4,263
	0	135	0	1	0	1	16	91	244	191		277	2,242	2,710	2,954
	0	19	0	0	0	0	5	11	35	70	86	49	551	756	791
tal	0	154	0	1	0	1	21	102	279	261	86	326	2,793	3,466	3,745
	0	77	0	0	0	1	11	54	143	79	38	112	1,262	1,491	1,634
	0	77	0	1	0	0	10	48	136	182	48	214	1,531	1,975	2,111
	37	362	111	117	14	10	777	264	1,692	7,537	240	500	2,793	11,070	12,762
	3	123	5	16	2	3	149	79	380	1,848	76	131	980	3,035	3,415
	29	223	90	83	9	5	517	152	1,108	4,197	126	286	1,236	5,845	6,953
	0	3	2	4	0	2	57	10	78	569	18	33	282	902	980
	5	13	14	14	3	0	54	23	126	923	20	50	295	1,288	1,414

t-time Graduate Students Fall 1973		
ar	Beyond first	Total
	3,147	5,773

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
32	62	51	145	82

nents
stry, and all other U S sources

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-5
SUMMARY OF RESPONSES FROM 3,422 GR
DEPARTMENTS IN THE LIFE SCIENC

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Gover		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	so
Fellowships and traineeships	U.S.	32	54	306	4,955	933	18	520	546	7,364	2,116	25	
	Foreign	0	0	0	137	25	4		254	420	321	637	
	Subtotal	32	54	306	5,092	958	22	520	800	7,784	2,437	662	
	First year	1	24	19	560	243	5	108	309	1,269	983	277	
	Beyond	31	30	287	4,532	715	17	412	491	6,515	1,454	385	
Graduate research assistantships	U.S.	70	38	14	1,273	122	47	539	1,440	3,543	3,370		
	Foreign	20	13	1	370	28	4	93	286	815	702	94	
	Subtotal	90	51	15	1,643	150	51	632	1,726	4,358	4,072	94	1
	First year	14	9	4	340	42	20	140	445	1,014	1,216	36	
	Beyond	76	42	11	1,303	108	31	492	1,281	3,344	2,856	58	
Graduate teaching assistantships	U.S.				34	18		19	27	98	7,972		
	Foreign				2	8		0	10	20	827		
	Subtotal				36	26		19	37	118	8,799		
	First year				10	16		6	13	45	2,923		
	Beyond				26	10		13	24	73	5,876		
Other types of support	U.S.	3	10	4	66	10	0	28	182	303	673		
	Foreign	0	0	0	12	2	0	5	62	81	112	341	
	Subtotal	3	10	4	78	12	0	33	244	384	785	341	
	First year	1	2	0	31	4	0	23	94	155	319	143	
	Beyond	2	8	4	47	8	0	10	150	229	466	198	
All types, total		125	115	325	6,849	1,146	73	1,204	2,807	12,644	16,093	1,097	2
Men	First year	14	33	15	658	170	20	220	730	1,860	3,894	396	
	Beyond	81	75	228	4,281	470	43	714	1,717	7,609	8,220	573	1
Women	First year	2	2	8	283	135	5	57	131	623	1,547	60	
	Beyond	28	5	74	1,627	371	5	213	229	2,552	2,432	68	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
2,376	4,217	6,593

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total
3,858	3,140	3,522	10,620

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ence Student Support, Fall 1973
ental Data Sheet

TABLE IV-5
SUMMARY OF RESPONSES FROM 3,422 GRADUATE DEPARTMENTS IN THE LIFE SCIENCES

hip and el	U.S. Government Source (excl. loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	32	54	306	4,955	933	18	520	546	7,364	2,116	25	612		2,753	10,117
	0	0	0	137	25	4		254	420	321	637	237		1,195	1,615
al	32	54	306	5,092	958	22	520	800	7,784	2,437	662	849		3,948	11,732
	1	24	19	560	243	5	108	309	1,269	983	277	271		1,531	2,800
	31	30	287	4,532	715	17	412	491	6,515	1,454	385	578		2,417	8,932
	70	38	14	1,273	122	47	539	1,440	3,543	3,370		859		4,229	7,772
	20	13	1	370	28	4	93	286	815	702	94	173		969	1,784
al	90	51	15	1,643	150	51	632	1,726	4,358	4,072	94	1,032		5,198	9,556
	14	9	4	340	42	20	140	445	1,014	1,216	36	319		1,571	2,585
	76	42	11	1,303	108	31	492	1,281	3,344	2,856	58	713		3,627	6,971
				34	18		19	27	98	7,972		69		8,041	8,139
				2	8		0	10	20	827		10		837	857
al				36	26		19	37	118	8,799		79		8,878	8,996
				10	16		6	13	45	2,923		33		2,956	3,001
				26	10		13	24	73	5,876		46		5,922	5,995
	3	10	4	66	10	0	28	182	303	673		398	7,708	8,779	9,082
	0	0	0	12	2	0	5	62	81	112	341	117	1,004	1,574	1,655
al	3	10	4	78	12	0	33	244	384	785	341	515	8,712	10,353	10,737
	1	2	0	31	4	0	23	94	155	319	143	191	4,502	5,155	5,310
	2	8	4	47	8	0	10	150	229	466	198	324	4,210	5,198	5,427
	125	115	325	6,849	1,146	73	1,204	2,807	12,644	16,093	1,097	2,475	8,712	28,377	41,021
	14	33	15	658	170	20	220	730	1,860	3,894	396	625	3,104	8,019	9,879
	81	75	228	4,281	470	43	714	1,717	7,609	8,220	573	1,351	3,144	13,288	20,897
	2	2	8	283	135	5	57	131	623	1,547	60	189	1,398	3,194	3,817
	8	5	74	1,627	371	5	213	229	2,552	2,432	68	310	1,066	3,876	6,428

ime Graduate Students Fall 1973	
Beyond first	Total
4,217	6,593

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
3,858	3,140	3,522	10,520	5,809

nts.
y, and all other U S sources

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-6
SUMMARY OF RESPONSES FROM 215 G
DEPARTMENTS IN PSYCHOLOG

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Gov	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources
Fellowships and traineeships	U.S.	1	17	115	826	1,190	2	227	437	2,815	836	7
	Foreign	0	0	0	3	8	0	0	20	31	49	26
	Subtotal	1	17	115	829	1,198	2	227	457	2,846	885	33
	First year	0	2	9	200	323	1	49	87	671	240	7
	Beyond	1	15	106	629	875	1	178	370	2,175	645	26
Graduate research assistantships	U.S.	0	48	1	214	299	5	122	162	851	869	
	Foreign	0	2	0	22	19	0	9	5	57	28	1
	Subtotal	0	50	1	236	318	5	131	167	908	897	1
	First year	0	9	0	63	74	2	25	39	212	294	0
	Beyond	0	41	1	173	244	3	106	128	696	603	1
Graduate teaching assistantships	U.S.				1	32		4	2	39	3,183	
	Foreign				0	1		0	0	1	126	
	Subtotal				1	33		4	2	40	3,309	
	First year				0	7		0	0	7	894	
	Beyond				1	26		4	2	33	2,415	
Other types of support	U.S.	0	22	2	8	18	0	11	173	234	612	
	Foreign	0	0	0	0	1	0	0	4	5	17	27
	Subtotal	0	22	2	8	19	0	11	177	239	629	27
	First year	0	8	0	2	0	0	0	49	59	135	14
	Beyond	0	14	2	6	19	0	11	128	180	494	13
All types, total		1	89	118	1,074	1,568	7	373	803	4,033	5,720	61
Men	First year	0	14	5	155	238	1	41	119	573	918	13
	Beyond	1	61	69	524	733	4	198	442	2,032	2,737	23
Women	First year	0	5	4	110	166	2	33	56	376	645	8
	Beyond	0	9	40	285	431	0	101	186	1,052	1,420	17

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
669	2,549	3,218

Postdoctorals and/or Research Associ Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S. Government	T
54	76	60	

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources.
[3] Since 1969

nce Student Support, Fall 1973
ental Data Sheet

TABLE IV-6
SUMMARY OF RESPONSES FROM 215 GRADUATE DEPARTMENTS IN PSYCHOLOGY

ip and	U.S. Government Source (excl. loans)*									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	Other U.S sources[2]	Self, loans, and family	Total	
	1	17	115	826	1,190	2	227	437	2,815	836	7	238		1,081	3,896
	0	0	0	3	8	0		20	31	49	26	9		84	115
	1	17	115	829	1,198	2	227	457	2,846	885	33	247		1,165	4,011
	0	2	9	200	323	1	49	87	671	240	7	48		295	966
	1	15	106	629	875	1	178	370	2,175	645	26	199		870	3,045
	0	48	1	214	299	5	122	162	851	869		106		975	1,826
	0	2	0	22	19	0	9	5	57	28	1	4		33	90
	0	50	1	236	318	5	131	167	908	897	1	110		1,008	1,916
	0	9	0	63	74	2	25	39	212	294	0	49		343	555
	0	41	1	173	244	3	106	128	696	603	1	61		665	1,361
				1	32		4	2	39	3,183		13		3,196	3,235
				0	1		0	0	1	126		0		126	127
				1	33		4	2	40	3,309		13		3,322	3,362
				0	7		0	0	7	894		6		900	907
				1	26		4	2	33	2,415		7		2,422	2,455
	0	22	2	8	18	0	11	173	234	612		588	3,702	4,902	5,136
	0	0	0	0	1	0	0	4	5	17	27	13	315	372	377
	0	22	2	8	19	0	11	177	239	629	27	601	4,017	5,274	5,513
	0	8	0	2	0	0	0	49	59	135	14	51	1,512	1,712	1,771
	0	14	2	6	19	0	11	128	180	494	13	550	2,505	3,562	3,742
	1	89	118	1,074	1,568	7	373	803	4,033	5,720	61	971	4,017	10,769	14,802
	0	14	5	155	238	1	41	119	573	918	13	83	894	1,908	2,481
	1	61	69	524	733	4	198	442	2,032	2,737	23	561	1,559	4,880	6,912
	0	5	4	110	166	2	33	56	376	645	8	71	618	1,342	1,718
	0	9	40	285	431	0	101	186	1,052	1,420	17	256	946	2,639	3,691

ime Graduate Students
Fall, 1973

	Beyond first	Total
	2,549	3,218

nts
y, and all other U.S. sources

Postdoctorals and/or Research Associates
Fall 1973

Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals
54	76	60	190	122

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-7
SUMMARY OF RESPONSES FROM 928 GR
DEPARTMENTS IN THE SOCIAL SCIE

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Gove		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	s
Fellowships and traineeships	U.S.	3	43	630	495	634	2	493	593	2,893	2,650	35	
	Foreign		1	8	9	21	0	330	369	406	491		
	Subtotal	3	44	638	504	655	2	493	923	3,262	3,056	526	
	First year	1	28	91	40	143	1	118	378	800	1,191	163	
	Beyond	2	16	547	464	512	1	375	545	2,462	1,865	343	
Graduate research assistantships	U.S.	1	17	3	50	132	10	262	483	958	2,225		
	Foreign	0	3	2	14	8	3	60	146	236	419	8	
	Subtotal	1	20	5	64	140	13	322	629	1,194	2,644	8	
	First year	0	7	3	15	24	4	62	192	307	973	3	
	Beyond	1	13	2	49	116	9	260	437	887	1,671	5	
Graduate teaching assistantships	U.S.				0	7		5	31	43	7,026		
	Foreign				0	1		2	4	7	911		
	Subtotal				0	8		7	35	50	7,937		
	First year				0	1		0	20	21	2,127		
	Beyond				0	7		7	15	29	5,810		
Other types of support	U.S.	0	202	3	6	9	0	17	324	561	864		
	Foreign	0	0	0	0	0	0	3	73	76	103	179	
	Subtotal	0	202	3	6	9	0	20	397	637	967	179	
	First year	0	105	1	2	1	0	2	164	275	336	89	
	Beyond	0	97	2	4	8	0	18	233	362	631	90	
All types, total		4	266	646	574	812	15	842	1,984	5,143	14,604	713	
Men	First year	1	135	70	35	82	5	124	593	1,045	3,243	229	
	Beyond	2	120	416	308	380	10	494	1,008	2,738	7,464	387	
Women	First year	0	5	25	22	87	0	58	161	358	1,384	46	
	Beyond	1	6	135	209	263	0	166	222	1,002	2,513	51	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
3,892	8,889	12,781

Postdoctorals and/or Research Associate Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S. Government	Tota
57	108	239	404

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ce Student Support, Fall 1973
tal Data Sheet

TABLE IV-7
SUMMARY OF RESPONSES FROM 928 GRADUATE DEPARTMENTS IN THE SOCIAL SCIENCES

and	U.S. Government Source (excl loans)									Non-Government Source					
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S sources[2]	Self, loans, and family	Total	Grand total
.....	3	43	630	495	634	2	493	593	2,893	2,650	35	900		3,585	6,478
.....		1	8	9	21	0		330	369	406	491	336		1,233	1,602
.....	3	44	638	504	655	2	493	923	3,262	3,056	526	1,236		4,818	8,080
.....	1	28	91	40	143	1	118	378	800	1,191	183	368		1,742	2,542
.....	2	16	547	464	512	1	375	545	2,462	1,865	343	868		3,076	5,538
.....	1	17	3	50	132	10	262	483	958	2,225		253		2,478	3,436
.....	0	3	2	14	8	3	60	146	236	419	8	60		487	723
.....	1	20	5	64	140	13	322	629	1,194	2,644	8	313		2,965	4,159
.....	0	7	3	15	24	4	62	192	307	973	3	116		1,092	1,399
.....	1	13	2	49	116	9	260	437	887	1,671	5	197		1,873	2,760
.....				0	7		5	31	43	7,026		53		7,079	7,122
.....				0	1		2	4	7	911		2		913	920
.....				0	8		7	35	50	7,937		55		7,992	8,042
.....				0	1		0	20	21	2,127		11		2,138	2,159
.....				0	7		7	15	29	5,810		44		5,854	5,883
.....	0	202	3	6	9	0	17	324	561	864		403	11,258	12,525	13,086
.....	0	0	0	0	0	0	3	73	76	103	179	38	1,670	1,990	2,066
.....	0	202	3	6	9	0	20	397	637	961	179	441	12,928	14,515	15,152
.....	0	105	1	2	1	0	2	164	275	336	89	140	5,280	5,845	6,120
.....	0	97	2	4	8	0	18	233	362	631	90	301	7,648	8,670	9,032
.....	4	266	646	574	812	15	842	1,984	5,143	14,604	713	2,045	12,928	30,290	35,433
.....	1	135	70	35	82	5	124	593	1,045	3,243	229	462	3,731	7,665	8,710
.....	2	120	416	308	380	10	494	1,008	2,738	7,464	387	1,046	5,592	14,489	17,227
.....	0	5	25	22	87	0	58	161	358	1,384	46	173	1,549	3,152	3,510
.....	1	6	135	209	263	0	166	222	1,002	2,513	51	364	2,056	4,984	5,986

Graduate Students Fall 1973	
Beyond first	Total
8,889	12,781

d all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
57	108	239	404	132

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-8
SUMMARY OF RESPONSES FROM 16 G
DEPARTMENTS IN ALL OTHER SCIE

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Gov	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreign sources
Fellowships and traineeships	U.S.	0	0	1	0	25	0	0	1	27	3	0
	Foreign		0	0	0	0	0		0	0	1	0
	Subtotal	0	0	1	0	25	0	0	1	27	4	0
	First year	0	0	0	0	25	0	0	1	26	3	0
	Beyond	0	0	1	0	0	0	0	0	1	1	0
Graduate research assistantships	U.S.	0	0	0	2	0	0	0	0	2	9	
	Foreign	0	0	0	0	0	0	0	0	0	1	0
	Subtotal	0	0	0	2	0	0	0	0	2	10	0
	First year	0	0	0	0	0	0	0	0	0	1	0
	Beyond	0	0	0	2	0	0	0	0	2	9	0
Graduate teaching assistantships	U.S.				0	0		0	0	0	33	
	Foreign				0	0		0	0	0	4	
	Subtotal				0	0		0	0	0	37	
	First year				0	0		0	0	0	18	
	Beyond				0	0		0	0	0	19	
Other types of support	U.S.	0	0	0	0	0	0	0	1	1	4	0
	Foreign	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	1	1	4	0
	First year	0	0	0	0	0	0	0	0	0	4	0
	Beyond	0	0	0	0	0	0	0	1	1	0	0
All types, total		0	0	1	2	25	0	0	2	30	55	0
Men	First year	0	0	0	0	13	0	0	1	14	19	0
	Beyond	0	0	0	2	0	0	0	1	3	19	0
Women	First year	0	0	0	0	12	0	0	0	12	7	0
	Beyond	0	0	1	0	0	0	0	0	1	10	0

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
86	136	222

Postdoctorals and/or Research Associ Fall 1973			
Source of support			
U.S. Government		Non-U.S. Government	T
Fellowships/ traineeships	Research associates		
0	0	1	

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ence Student Support, Fall 1973
ental Data Sheet

TABLE IV-8
SUMMARY OF RESPONSES FROM 16 GRADUATE DEPARTMENTS IN ALL OTHER SCIENCES

hip and el	U S. Government Source (excl loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	Other U.S sources[2]	Self, loans, and family	Total	
	0	0	1	0	25	0	0	1	27	3	0	0		3	30
		0	0	0	0	0		0	0	1	0	1		2	2
al	0	0	1	0	25	0	0	1	27	4	0	1		5	32
	0	0	0	0	25	0	0	1	26	3	0	1		4	30
	0	0	1	0	0	0	0	0	1	1	0	0		1	2
	0	0	0	2	0	0	0	0	2	9		0		9	11
	0	0	0	0	0	0	0	0	0	1	0	0		1	1
al	0	0	0	2	0	0	0	0	2	10	0	0		10	12
	0	0	0	0	0	0	0	0	0	1	0	0		1	1
	0	0	0	2	0	0	0	0	2	9	0	0		9	11
				0	0		0	0	0	33		0		33	33
				0	0		0	0	0	4		0		4	4
al				0	0		0	0	0	37		0		37	37
				0	0		0	0	0	18		0		18	18
				0	0		0	0	0	19		0		19	19
	0	0	0	0	0	0	0	1	1	4	0	1	40	45	46
	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6
al	0	0	0	0	0	0	0	1	1	4	0	1	46	51	52
	0	0	0	0	0	0	0	0	0	4	0	1	21	26	26
	0	0	0	0	0	0	0	1	1	0	0	0	25	25	26
	0	0	1	2	25	0	0	2	30	55	0	2	46	103	133
	0	0	0	0	13	0	0	1	14	19	0	2	14	35	49
	0	0	0	2	0	0	0	1	3	19	0	0	20	39	42
	0	0	0	0	12	0	0	0	12	7	0	0	7	14	26
	0	0	1	0	0	0	0	0	1	10	0	0	5	15	16

-time Graduate Students
Fall 1973

	Beyond first	Total
	136	222

nts
try, and all other U S sources

Postdoctorals and/or Research Associates
Fall 1973

Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
0	0	1	1	1

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-9
SUMMARY OF RESPONSES FROM 876 MASTERS DEPARTMENTS

Type of support	Citizenship and level	U.S Government Source (excl loans)									Non-Govern		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	O U sou
Fellowships and traineeships	U.S.	8	71	12	61	141	2	29	179	503	338	10	
	Foreign	0	0	0	3	4	0		32	39	44	66	
	Subtotal	8	71	12	64	145	2	29	211	542	382	76	
	First year	3	63	8	24	37	1	17	139	292	225	47	
	Beyond	5	8	4	40	108	1	12	72	250	157	29	
Graduate research assistantships	U.S.	8	39	0	21	29	13	71	307	488	879		
	Foreign	0	5	0	4	6	5	29	56	105	165	24	
	Subtotal	8	44	0	25	35	18	100	363	593	1,044	24	
	First year	3	19	0	7	12	8	54	163	266	593	9	
	Beyond	5	25	0	18	23	10	46	200	327	451	15	
Graduate teaching assistantships	U S				0	6		13	17	36	3,105		
	Foreign				0	0		2	6	8	370		
	Subtotal				0	6		15	23	44	3,475		
	First year				0	4		9	16	29	1,911		
	Beyond				0	2		6	7	15	1,564		
Other types of support	U S.	0	386	0	0	6	0	24	218	634	351		
	Foreign	0	19	0	0	0	0	0	28	47	38	114	
	Subtotal	0	405	0	0	6	0	24	246	681	389	114	
	First year	0	208	0	0	1	0	22	134	365	230	73	
	Beyond	0	197	0	0	5	0	2	112	316	159	41	
All types, total		16	520	12	89	192	20	168	843	1,860	5,290	214	5
Men	First year	6	289	8	13	20	9	79	387	811	2,211	104	2
	Beyond	9	229	4	33	28	11	60	346	720	1,769	70	2
Women	First year	0	1	0	18	34	0	23	65	141	748	25	
	Beyond	1	1	0	25	110	0	6	45	188	562	15	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
4,964	5,048	10,012

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S Government	Total
22	61	61	144

Includes institution's and State and local governments
Includes support from nonprofit institutions industry and all other U S sources
Since 1969

nce Student Support, Fall 1973
ntal Data Sheet

TABLE IV-9
SUMMARY OF RESPONSES FROM 876 MASTERS DEPARTMENTS

and	U S Government Source (excl loans)									Non-Government Source					
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U S. sources[2]	Self, loans, and family	Total	Grand total
.....	8	71	12	61	141	2	29	179	503	338	10	140		488	991
.....	0	0	0	3	4	0		32	39	44	66	29		139	178
.....	8	71	12	64	145	2	29	211	542	382	76	169		627	1,169
.....	3	63	8	24	37	1	17	139	292	225	47	97		369	661
.....	5	8	4	40	108	1	12	72	250	157	29	72		258	508
.....	8	39	0	21	29	13	71	307	488	879		160		1,039	1,527
.....	0	5	0	4	6	5	29	56	105	165	24	30		219	324
.....	8	44	0	25	35	18	100	363	593	1,044	24	190		1,258	1,851
.....	3	19	0	7	12	8	54	163	266	593	9	105		707	973
.....	5	25	0	18	23	10	46	200	327	451	15	85		551	878
.....				0	6		13	17	36	3,105		28		3,133	3,169
.....				0	0		2	6	8	370		0		370	378
.....				0	6		15	23	44	3,475		28		3,503	3,547
.....				0	4		9	16	29	1,911		17		1,928	1,957
.....				0	2		6	7	15	1,564		11		1,575	1,590
.....	0	386	0	0	6	0	24	218	634	351		161	4,152	4,664	5,298
.....	0	19	0	0	0	0	0	28	47	38	114	11	634	797	844
.....	0	405	0	0	6	0	24	246	681	389	114	172	4,786	5,461	6,142
.....	0	208	0	0	1	0	22	134	365	230	73	82	2,685	3,070	3,435
.....	0	197	0	0	5	0	2	112	316	159	41	90	2,101	2,391	2,707
.....	16	520	12	89	192	20	168	843	1,860	5,290	214	559	4,786	10,849	12,709
.....	6	289	8	13	20	9	79	387	811	2,211	104	251	1,910	4,476	5,287
.....	9	229	4	33	28	11	60	346	720	1,769	70	213	1,632	3,684	4,404
.....	0	1	0	18	34	0	23	65	141	748	25	50	775	1,598	1,739
.....	1	1	0	25	110	0	6	45	188	562	15	45	469	1,091	1,279

ne Graduate Students Fall 1973	
Beyond first	Total
5,048	10,012

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
22	61	61	144	65

and all other U S sources

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-10
SUMMARY OF RESPONSES FROM 18
DEPARTMENTS IN ENGINEER

Type of support	Citizenship and level	U.S Government Source (excl. loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreig source
Fellowships and traineeships	U.S.	4	50	1	3	5	0	5	59	127	27	0
	Foreign		0	0	0	0	0		9	9	8	9
	Subtotal	4	50	1	3	5	0	5	68	136	35	9
	First year	2	49	1	1	3	0	5	52	113	13	7
	Beyond	2	1	0	2	2	0	0	16	23	22	2
Graduate research assistantships	U.S.	2	23	0	0	0	5	27	56	113	119	
	Foreign	0	2	0	0	0	4	21	25	52	60	4
	Subtotal	2	25	0	0	0	9	48	81	185	179	4
	First year	2	13	0	0	0	5	28	51	99	103	0
	Beyond	0	12	0	0	0	4	20	30	66	76	4
Graduate teaching assistantships	U.S.				0	0		0	3	3	370	
	Foreign				0	0		0	0	0	87	
	Subtotal				0	0		0	3	3	457	
	First year				0	0		0	3	3	275	
	Beyond				0	0		0	0	0	182	
Other types of support	U.S.	0	108	0	0	0	0	0	70	178	32	
	Foreign	0	0	0	0	0	0	0	4	4	9	33
	Subtotal	0	108	0	0	0	0	0	74	182	41	33
	First year	0	54	0	0	0	0	0	30	84	27	21
	Beyond	0	54	0	0	0	0	0	44	98	14	12
All types, total		6	183	1	3	5	9	53	226	486	712	46
Men	First year	4	116	1	1	3	5	31	125	286	392	28
	Beyond	2	67	0	2	0	4	20	86	181	276	16
Women	First year	0	0	0	0	0	0	2	11	13	26	0
	Beyond	0	0	0	0	2	0	0	4	6	18	2

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
1,853	1,747	3,600

Postdoctorals and/or Research Assc Fall 1973		
Source of support		
U.S. Government		Non-U.S. Government
Fellowships/ traineeships	Research associates	
0	4	9

[1] Includes institution s and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

cience Student Support, Fall 1973
mental Data Sheet

TABLE IV-10
SUMMARY OF RESPONSES FROM 189 MASTER'S DEPARTMENTS IN ENGINEERING

nship and evel	U S. Government Source (excl loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U S. sources[2]	Self, loans, and family	Total	
	4	50	1	3	5	0	5	59	127	27	0	15		42	169
	0	0	0	0	0	0		9	9	8	9	3		20	29
otal	4	50	1	3	5	0	5	68	136	35	9	18		62	198
	2	49	1	1	3	0	5	52	113	13	7	13		33	146
	2	1	0	2	2	0	0	16	23	22	2	5		29	52
	2	23	0	0	0	5	27	56	113	119		39		158	271
	0	2	0	0	0	4	21	25	52	60	4	14		78	130
otal	2	25	0	0	0	9	48	81	185	179	4	53		236	401
	2	13	0	0	0	5	28	51	99	103	0	39		142	241
	0	12	0	0	0	4	20	30	66	76	4	14		94	160
				0	0		0	3	3	370		8		378	381
				0	0		0	0	0	87		0		87	87
otal				0	0		0	3	3	457		8		465	468
				0	0		0	3	3	275		6		281	284
				0	0		0	0	0	182		2		184	184
	0	108	0	0	0	0	0	70	178	32		22	607	661	839
	0	0	0	0	0	0	0	4	4	9	33	3	299	344	348
otal	0	108	0	0	0	0	0	74	182	41	33	25	906	1,005	1,187
	0	54	0	0	0	0	0	30	84	27	21	10	495	553	637
	0	54	0	0	0	0	0	44	98	14	12	15	411	452	550
	6	183	1	3	5	9	53	226	486	712	46	104	906	1,768	2,254
	4	116	1	1	3	5	31	125	286	392	28	68	456	944	1230
	2	67	0	2	0	4	20	86	181	276	16	36	373	701	882
	0	0	0	0	0	0	2	11	13	26	0	0	39	65	78
	0	0	0	0	2	0	0	4	6	18	2	0	38	58	64

rt-time Graduate Students Fall 1973		
ar	Beyond first	Total
	1,747	3,600

ments
ustry, and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government		Non-U.S Government	Total	Recent doctorals[3]
Fellowships/ traineeships	Research associates			
0	4	9	13	4

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-11
SUMMARY OF RESPONSES FROM 128 MAS
DEPARTMENTS IN PHYSICAL SCIENCE

Type of support	Citizenship and level	U.S. Government Source (excl. loans)									Non-Governm		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U sou
Fellowships and traineeships	U.S.	3	2	1	8	1	0	4	23	42	24	1	
	Foreign		0	0	0	0	0		0	0	2	6	
	Subtotal	3	2	1	8	1	0	4	23	42	26	7	
	First year	0	1	0	1	0	0	1	16	19	15	3	
	Beyond	3	1	1	7	1	0	3	7	23	11	4	
Graduate research assistantships	U.S	3	11	0	2	0	6	13	35	70	73		
	Foreign	0	2	0	1	0	0	4	1	8	12	2	
	Subtotal	3	13	0	3	0	6	17	36	78	85	2	
	First year	0	5	0	0	0	2	7	11	25	51	1	
	Beyond	3	8	0	3	0	4	10	25	53	34	1	
Graduate teaching assistantships	U S				0	0		2	0	2	567		
	Foreign				0	0		0	0	0	84		
	Subtotal				0	0		2	0	2	651		
	First year				0	0		2	0	2	328		
	Beyond				0	0		0	0	0	323		
Other types of support	U.S	0	0	0	0	0	0	1	22	23	25		
	Foreign	0	0	0	0	0	0	0	0	0	13	6	
	Subtotal	0	0	0	0	0	0	1	22	23	38	6	
	First year	0	0	0	0	0	0	0	8	8	16	5	
	Beyond	0	0	0	0	0	0	1	14	15	22	1	
All types, total		6	15	1	11	1	6	24	81	145	800	15	
Men	First year	0	6	0	0	0	2	9	32	49	366	7	
	Beyond	6	9	1	7	0	4	13	42	82	333	6	
Women	First year	0	0	0	1	0	0	1	3	5	44	2	
	Beyond	0	0	0	3	1	0	1	4	9	57	0	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
234	396	630

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total
1	9	7	17

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions industry and all other U S sources
[3] Since 1969

ce Student Support, Fall 1973
tal Data Sheet

TABLE IV-11
SUMMARY OF RESPONSES FROM 128 MASTER's DEPARTMENTS IN PHYSICAL SCIENCES

and	U.S Government Source (excl loans)									Non-Government Source					
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	Grand total
.....	3	2	1	8	1	0	4	23	42	24	1	16		41	83
.....		0	0	0	0	0		0	0	2	6	3		11	11
.....	3	2	1	8	1	0	4	23	42	26	7	19		52	94
.....	0	1	0	1	0	0	1	16	19	15	3	4		22	41
.....	3	1	1	7	1	0	3	7	23	11	4	15		30	53
.....	3	11	0	2	0	6	13	35	70	73		39		112	182
.....	0	2	0	1	0	0	4	1	8	12	2	4		18	26
.....	3	13	0	3	0	6	17	36	78	85	2	43		130	208
.....	0	5	0	0	0	2	7	11	25	51	1	12		64	89
.....	3	8	0	3	0	4	10	25	53	34	1	31		66	119
.....				0	0		2	0	2	567		5		572	574
.....				0	0		0	0	0	84		0		84	84
.....				0	0		2	0	2	651		5		656	658
.....				0	0		2	0	2	328		5		333	335
.....				0	0		0	0	0	323		0		323	323
.....	0	0	0	0	0	0	1	22	23	25		25	212	262	285
.....	0	0	0	0	0	0	0	0	0	13	6	0	28	47	47
.....	0	0	0	0	0	0	1	22	23	38	6	25	240	309	332
.....	0	0	0	0	0	0	0	8	8	16	5	11	122	154	162
.....	0	0	0	0	0	0	1	14	15	22	1	14	118	155	170
.....	6	15	1	11	1	6	24	81	145	800	15	92	240	1,147	1,292
.....	0	6	0	0	0	2	9	32	49	366	7	28	101	502	551
.....	6	9	1	7	0	4	13	42	82	333	6	49	104	492	574
.....	0	0	0	1	0	0	1	3	5	44	2	4	21	71	76
.....	0	0	0	3	1	0	1	4	9	57	0	11	14	82	91

e Graduate Students Fall 1973	
Beyond first	Total
396	630

nd all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
1	9	7	17	13

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-12
SUMMARY OF RESPONSES FROM 83
DEPARTMENTS IN THE MATHEMATICA

Type of support	Citizenship and level	U.S. Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreign source
Fellowships and traineeships	U.S.	0	7	0	0	0	0	4	4	15	15	0
	Foreign		0	0	0	0	0		0	0	0	3
	Subtotal	0	7	0	0	0	0	4	4	15	15	3
	First year	0	6	0	0	0	0	2	1	9	9	3
	Beyond	0	1	0	0	0	0	2	3	6	6	0
Graduate research assistantships	U.S.	0	0	0	2	0	0	6	2	10	34	
	Foreign	0	0	0	0	0	1	1	0	2	8	0
	Subtotal	0	0	0	2	0	1	7	2	12	42	0
	First year	0	0	0	1	0	0	3	1	5	25	0
	Beyond	0	0	0	1	0	1	4	1	7	17	0
Graduate teaching assistantships	U.S.				0	0		11	0	11	509	
	Foreign				0	0		2	0	2	53	
	Subtotal				0	0		13	0	13	562	
	First year				0	0		7	0	7	315	
	Beyond				0	0		6	0	6	247	
Other types of support	U.S.	0	123	0	0	0	0	7	4	134	20	
	Foreign	0	19	0	0	0	0	0	2	21	2	18
	Subtotal	0	142	0	0	0	0	7	6	155	22	18
	First year	0	71	0	0	0	0	7	5	83	11	10
	Beyond	0	71	0	0	0	0	0	1	72	11	8
All types, total		0	149	0	2	0	1	31	12	195	641	21
Men	First year	0	77	0	0	0	0	12	6	95	250	7
	Beyond	0	71	0	1	0	1	10	5	88	196	5
Women	First year	0	0	0	1	0	0	7	1	9	110	6
	Beyond	0	1	0	0	0	0	2	0	3	85	3

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
978	630	1,608

Postdoctorals and/or Research Asso Fall 1973		
Source of support		
U.S. Government		Non-U.S. Government
Fellowships/ traineeships	Research associates	
0	0	0

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions industry and all other U S sources
[3] Since 1969

clence Student Support, Fall 1973
tmental Data Sheet

TABLE IV-12
SUMMARY OF RESPONSES FROM 83 MASTER'S DEPARTMENTS IN THE MATHEMATICAL SCIENCES

nship and evel	U.S. Government Source (excl loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	0	7	0	0	0	0	4	4	15	15	0	5		20	35
	0	0	0	0	0	0	0	0	0	0	3	0		3	3
otal	0	7	0	0	0	0	4	4	15	15	3	5		23	38
	0	6	0	0	0	0	2	1	9	9	3	2		14	23
	0	1	0	0	0	0	2	3	6	6	0	3		9	15
	0	0	0	2	0	0	6	2	10	34		4		38	48
	0	0	0	0	0	1	1	0	2	8	0	1		9	11
otal	0	0	0	2	0	1	7	2	12	42	0	5		47	59
	0	0	0	1	0	0	3	1	5	25	0	2		27	32
	0	0	0	1	0	1	4	1	7	17	0	3		20	27
				0	0		11	0	11	509		5		514	525
				0	0		2	0	2	53		0		53	55
otal				0	0		13	0	13	562		5		567	580
				0	0		7	0	7	315		4		319	326
				0	0		6	0	6	247		1		248	254
	0	123	0	0	0	0	7	4	134	20		6	336	362	496
	0	19	0	0	0	0	0	2	21	2	18	0	53	73	94
otal	0	142	0	0	0	0	7	6	155	22	18	6	389	435	590
	0	71	0	0	0	0	7	5	83	11	10	1	201	223	306
	0	71	0	0	0	0	0	1	72	11	8	5	188	212	284
	0	149	0	2	0	1	31	12	195	641	21	21	389	1,072	1,267
	0	77	0	0	0	0	12	6	95	250	7	7	139	403	498
	0	71	0	1	0	1	10	5	88	196	5	12	137	350	438
	0	0	0	1	0	0	7	1	9	110	6	2	62	180	189
	0	1	0	0	0	0	2	0	3	85	3	0	51	139	142

t-time Graduate Students
Fall 1973

ar	Beyond first	Total
	630	1,608

nents
stry, and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
0	0	0	0	0

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-13
SUMMARY OF RESPONSES FROM 170 MAS DEPARTMENTS IN THE LIFE SCIENCE

Type of support	Citizenship and level	U.S. Government Source (excl loans)									Non-Governm		
		AEC	DOD	HEW NDEA	HEW NIH	HEW Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	O U sou
Fellowships and traineeships	U S	0	0	0	47	94	1	3	39	184	80	1	
	Foreign	0	0	0	3	0	0		12	15	10	36	
	Subtotal	0	0	0	50	94	1	3	51	199	90	37	
	First year	0	0	0	21	16	0	1	25	63	38	23	
	Beyond	0	0	0	29	78	1	2	26	136	52	14	
Graduate research assistantships	U S	3	4	0	13	6	0	4	121	151	243		
	Foreign	0	1	0	1	5	0	3	24	34	35	17	
	Subtotal	3	5	0	14	11	0	7	145	185	278	17	
	First year	1		0	3	6	0	1	47	58	123	8	
	Beyond	2	5	0	11	5	0	6	88	127	155	9	
Graduate teaching assistantships	U S					3		0	4	7	546		
	Foreign					0		0	5	5	49		
	Subtotal					3		0	9	12	595		
	First year					2		0	4	6	300		
	Beyond					1		0	5	6	295		
Other types of support	U S	0	1	0	0	1	0	15	15	32	51		
	Foreign	0	0	0	0	0	0	0	7	7	5	22	
	Subtotal	0	1	0	0	1	0	15	22	39	56	22	
	First year	0	0	0	0	1	0	15	17	33	32	12	
	Beyond	0	1	0	0	0	0	0	5	6	24	10	
All types, total		3	6	0	64	109	1	25	227	435	1,019	76	10
Men	First year	1	0	0	9	7	0	11	78	106	355	38	
	Beyond	1	6	0	20	6	1	6	113	153	403	27	
Women	First year	0	0	0	15	18	0	6	15	54	138	5	
	Beyond	1	0	0	20	78	0	2	21	122	123	6	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
374	472	846

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U S Government			
Fellowships/ traineeships	Research associates	Non-U.S Government	Total
17	45	25	87

Includes institutions and State and local governments
Includes support from nonprofit institutions, industry, and all other U S sources
Since 1969

nce Student Support, Fall 1973
ntal Data Sheet

TABLE IV-13
SUMMARY OF RESPONSES FROM 170 MASTER'S DEPARTMENTS IN THE LIFE SCIENCES

p and	U S Government Source (excl loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U S sources[2]	Self, loans, and family	Total	
	0	0	0	47	94	1	3	39	184	80	1	19		100	284
		0	0	3	0	0		12	15	10	36	16		62	77
	0	0	0	50	94	1	3	51	199	90	37	35		162	361
	0	0	0	21	16	0	1	25	63	38	23	11		72	135
	0	0	0	29	78	1	2	26	136	52	14	24		90	226
	3	4	0	13	6	0	4	121	151	243		38		281	432
	0	1	0	1	5	0	3	24	34	35	17	6		58	92
	3	5	0	14	11	0	7	145	185	278	17	44		339	524
	1		0	3	6	0	1	47	58	123	8	17		148	206
	2	5	0	11	5	0	6	98	127	155	9	27		191	318
					3		0	4	7	546				546	553
					0		0	5	5	49				49	54
					3		0	9	12	595				595	607
					2		0	4	6	300				300	306
					1		0	5	6	295				295	301
	0	1	0	0	1	0	15	15	32	51		24	62	697	729
	0	0	0	0	0	0	0	7	7	5	22	4	[redacted]	89	96
	0	1	0	0	1	0	15	22	39	56	22	28	680	786	825
	0	0	0	0	1	0	15	17	33	32	12	10	399	453	486
	0	1	0	0	0	0	0	5	6	24	10	18	281	333	339
	3	6	0	64	109	1	25	227	435	1,019	76	107	680	1,882	2,317
	1	0	0	9	7	0	11	78	106	355	38	31	219	643	749
	1	6	0	20	6	1	6	113	153	403	27	55	217	702	855
	0	0	0	15	18	0	6	15	54	138	5	7	180	330	384
	1	0	0	20	78	0	2	21	122	123	6	14	64	207	329

e Graduate Students Fall 1973	
Beyond first	Total
472	846

nd all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals[3]
17	45	25	87	41

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Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-14
SUMMARY OF RESPONSES FR
35 MASTER'S DEPARTMENTS IN PSY

Type of support	Citizenship and level	U.S Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreig source
Fellowships and traineeships	U.S.	0	0	0	3	7	0	0	0	10	15	6
	Foreign		0	0	0	2	0		0	2	1	1
	Subtotal	0	0	0	3	9	0	0	0	12	16	7
	First year	0	0	0	1	0	0	0	0	1	13	4
	Beyond	0	0	0	2	9	0	0	0	11	3	3
Graduate research assistantships	U S	0	0	0	4	7	0	2	0	13	58	
	Foreign	0	0	0	2	0	0	0	0	2	1	0
	Subtotal	0	0	0	6	7	0	2	0	15	59	0
	First year	0	0	0	3	2	0	1	0	6	25	0
	Beyond	0	0	0	3	5	0	1	0	9	34	0
Graduate teaching assistantships	U S				0	2		0	1	3	226	
	Foreign				0	0		0	0	0	2	
	Subtotal				0	2		0	1	3	228	
	First year				0	2		0	0	2	123	
	Beyond				0	0		0	1	1	105	
Other types of support	U.S.	0	0	0	0	0	0	0	21	21	55	
	Foreign	0	0	0	0	0	0	0	0	0	0	11
	Subtotal	0	0	0	0	0	0	0	21	21	55	11
	First year	0	0	0	0	0	0	0	15	15	26	11
	Beyond	0	0	0	0	0	0	0	6	6	29	0
All types, total		0	0	0	9	18	0	2	22	51	358	18
Men	First year	0	0	0	3	2	0	0	15	20	105	9
	Beyond	0	0	0	3	5	0	1	7	16	106	1
Women	First year	0	0	0	1	2	0	1	0	4	82	6
	Beyond	0	0	0	2	9	0	0	0	11	65	2

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
77	185	262

Postdoctorals and/or Research Ass Fall 1973		
Source of support		
U S Government		
Fellowships/ traineeships	Research associates	Non-U S Government
0	0	0

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions industry and all other U.S sources
[3] Since 1969

Science Student Support, Fall 1973
rtmental Data Sheet

TABLE IV-14
SUMMARY OF RESPONSES FROM 35 MASTER'S DEPARTMENTS IN PSYCHOLOGY

enship and level	U S Government Source (excl loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreign sources	Other U S sources[2]	Self, loans, and family	Total	
	0	0	0	3	7	0	0	0	10	15	6	16		37	47
		0	0	0	2	0		0	2	1	1	0		2	4
btotal	0	0	0	3	9	0	0	0	12	16	7	16		39	51
ar	0	0	0	1	0	0	0	0	1	13	4	7		24	25
	0	0	0	2	9	0	0	0	11	3	3	9		15	26
	0	0	0	4	7	0	2	0	13	58		6		64	77
	0	0	0	2	0	0	0	0	2	1	0	0		1	3
btotal	0	0	0	6	7	0	2	0	15	59	0	6		65	80
ar	0	0	0	3	2	0	1	0	6	25	0	5		30	36
	0	0	0	3	5	0	1	0	9	34	0	1		35	44
				0	2		0	1	3	226		1		227	230
				0	0		0	0	0	2		0		2	2
btotal				0	2		0	1	3	228		1		229	232
ar				0	2		0	0	2	123		0		123	125
				0	0		0	1	1	105		1		106	107
	0	0	0	0	0	0	0	21	21	55		1	571	627	648
	0	0	0	0	0	0	0	0	0	0	11	0	20	31	31
btotal	0	0	0	0	0	0	0	21	21	55	11	1	591	658	679
ar	0	0	0	0	0	0	0	15	15	26	11	1	300	338	353
	0	0	0	0	0	0	0	6	6	29	0	0	291	320	326
	0	0	0	9	18	0	2	22	51	358	18	24	591	991	1,042
ar	0	0	0	3	2	0	0	15	20	105	9	8	188	310	330
	0	0	0	3	5	0	1	7	16	106	1	8	166	281	297
ar	0	0	0	1	2	0	1	0	4	82	6	5	112	205	209
	0	0	0	2	9	0	0	0	11	65	2	3	125	195	206

Part-time Graduate Students
Fall 1973

year	Beyond first	Total
	185	262

rnments
ndustry and all other U S sources

Postdoctorals and/or Research Associates
Fall 1973

Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S. Government	Total	Recent doctorals
0	0	0	0	0

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-15
SUMMARY OF RESPONSES FROM 269 MA
DEPARTMENTS IN THE SOCIAL SCIEN

Type of support	Citizenship and level	U.S Government Source (excl loans)									Non-Govern		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	O U sou
Fellowships and traineeships	US	1	12	10	0	34	1	13	54	125	175	2	
	Foreign	0	0	0	0	2	0		11	13	23	11	
	Subtotal	1	12	10	0	36	1	13	65	138	198	13	
	First year	1	7	7	0	18	1	8	45	87	135	7	
	Beyond	0	5	3	0	18	0	5	20	51	63	6	
Graduate research assistantships	US	0	1	0	0	16	2	19	93	131	352		
	Foreign	0	0	0	0	1	0	0	6	7	49	1	
	Subtotal	0	1	0	0	17	2	19	99	138	401	1	
	First year	0	1	0	0	4	1	14	53	73	266	0	
	Beyond	0	0	0	0	13	1	5	46	65	135	1	
Graduate teaching assistantships	US				0	1		0	9	10	887		
	Foreign				0	0		0	1	1	95		
	Subtotal				0	1		0	10	11	982		
	First year				0	0		0	9	9	570		
	Beyond				0	1		0	1	2	412		
Other types of support	US	0	154	0	0	5	0	1	85	245	164		
	Foreign	0	0	0	0	0	0	0	15	15	9	24	
	Subtotal	0	154	0	0	5	0	1	100	260	173	24	
	First year	0	83	0	0	0	0	0	59	142	114	14	
	Beyond	0	71	0	0	5	0	1	41	118	59	10	
All types, total		1	167	10	0	59	3	33	274	547	1,754	38	2
Men	First year	1	90	7	0	8	2	16	131	255	739	15	1
	Beyond	0	76	3	0	17	1	10	92	199	455	15	
Women	First year	0	1	0	0	14	0	6	35	56	346	6	
	Beyond	0	0	0	0	20	0	1	16	37	214	2	

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
1,447	1,618	3,065

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U S Government	Total
4	3	20	27

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry and all other U S sources
[3] Since 1969

e Student Support, Fall 1973
al Data Sheet

TABLE IV-15
SUMMARY OF RESPONSES FROM 269 MASTER'S DEPARTMENTS IN THE SOCIAL SCIENCES

nd	U S Government Source (excl loans)									Non-Government Source					Grand total
	AEC	DOD	HEW NDEA	HEW NIH	HEW Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U S sources[2]	Self, loans, and family	Total	
	1	12	10	0	34	1	13	54	125	175	2	69		246	371
	0	0	0	0	2	0		11	13	23	11	6		40	53
	1	12	10	0	36	1	13	65	138	198	13	75		286	424
	1	7	7	0	18	1	8	45	87	135	7	59		201	288
	0	5	3	0	18	0	5	20	51	63	6	16		85	136
	0	1	0	0	16	2	19	93	131	352		34		386	517
	0	0	0	0	1	0	0	6	7	49	1	5		55	62
	0	1	0	0	17	2	19	99	138	401	1	39		441	579
	0	1	0	0	4	1	14	53	73	266	0	30		296	369
	0	0	0	0	13	1	5	46	65	135	1	9		145	210
			0	1		0	9	10	887		9		896	906	
			0	0		0	1	1	95		0		95	96	
			0	1		0	10	11	982		9		991	1,002	
			0	0		0	9	9	570		2		572	581	
			0	1		0	1	2	412		7		419	421	
	0	154	0	0	5	0	1	85	245	164		83	1,797	2,044	2,289
	0	0	0	0	0	0	0	15	15	9	24	4	175	212	227
	0	154	0	0	5	0	1	100	260	173	24	87	1,972	2,256	2,516
	0	83	0	0	0	0	0	59	142	114	14	49	1,160	1,337	1,479
	0	71	0	0	5	0	1	41	118	59	10	38	812	919	1,037
	1	167	10	0	59	3	33	274	547	1,754	38	210	1,972	3,974	4,521
	1	90	7	0	8	2	16	131	255	739	15	108	800	1,662	1,917
	0	76	3	0	17	1	10	92	199	455	15	53	635	1,158	1,357
	0	1	0	0	14	0	6	35	56	346	6	32	360	744	800
	0	[illegible]	0	0	20	0	1	16	37	214	2	17	177	410	447

Graduate Students Fall 1973	
Beyond first	Total
1,618	3,065

[1] all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
4	8	20	27	7

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-16
SUMMARY OF RESPONSES FROM 2 I
DEPARTMENTS IN ALL OTHER SCI

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-G	
		AEC	DOD	HEW NDEA	HEW NIH	HEW Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreig source
Fellowships and traineeships	U.S.	0	0	0	0	0	0	0	0	0	2	0
	Foreign		0	0	0	0	0		0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	2	0
	First year	0	0	0	0	0	0	0	0	0	2	0
	Beyond	0	0	0	0	0	0	0	0	0	0	0
Graduate research assistantships	U S	0	0	0	0	0	0	0	0	0	0	
	Foreign	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0	0
	First year	0	0	0	0	0	0	0	0	0	0	0
	Beyond	0	0	0	0	0	0	0	0	0	0	0
Graduate teaching assistantships	U.S.				0	0		0	0	0	0	
	Foreign				0	0		0	0	0	0	
	Subtotal				0	0		0	0	0	0	
	First year				0	0		0	0	0	0	
	Beyond				0	0		0	0	0	0	
Other types of support	U S.	0	0	0	0	0	0	0	1	1	4	
	Foreign	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	1	1	4	0
	First year	0	0	0	0	0	0	0	0	0	4	0
	Beyond	0	0	0	0	0	0	0	1	1	0	0
All types, total		0	0	0	0	0	0	0	1	1	6	0
Men	First year	0	0	0	0	0	0	0	0	0	4	0
	Beyond	0	0	0	0	0	0	0	1	1	0	0
Women	First year	0	0	0	0	0	0	0	0	0	2	0
	Beyond	0	0	0	0	0	0	0	0	0	0	0

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
1	0	1

Postdoctorals and/or Research Asso Fall 1973		
Source of support		
U S. Government		Non-U S. Government
Fellowships/ traineeships	Research associates	
0	0	0

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

clence Student Support, Fall 1973
mental Data Sheet

TABLE IV-16
SUMMARY OF RESPONSES FROM 2 MASTER'S DEPARTMENTS IN ALL OTHER SCIENCES

nship and level	U.S Government Source (excl loans)									Non-Government Source					Grand total
			HEW							Insti-tutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	0	0	0	0	0	0	0	0	0	2	0	0		2	2
		0	0	0	0	0		0	0	0	0	1		1	1
otal	0	0	0	0	0	0	0	0	0	2	0	1		3	3
r	0	0	0	0	0	0	0	0	0	2	0	1		3	3
	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	0	0	0	0	0	0	0	0	0	0		0		0	0
	0	0	0	0	0	0	0	0	0	0	0	0		0	0
otal	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	0	0	0	0	0	0	0	0	0	0	0	0		0	0
				0	0		0	0	0	0		0		0	0
				0	0		0	0	0	0		0		0	0
otal				0	0		0	0	0	0		0		0	0
				0	0		0	0	0			0		0	0
				0	0		0	0	0	0		0		0	0
	0	0	0	0	0	0	0	1	1	4		0	7	11	12
	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
otal	0	0	0	0	0	0	0	1	1	4	0	0	8	12	13
	0	0	0	0	0	0	0	0	0	4	0	0	8	12	12
	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
	0	0	0	0	0	0	0	1	1	6	0	1	8	15	16
	0	0	0	0	0	0	0	0	0	4	0	1	7	12	12
	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	2	0	0	1	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

rt-time Graduate Students Fall 1973		
ear	Beyond first	Total
	0	1

nments.
dustry, and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent-doctorals[3]
0	0	0	0	0

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-17
SUMMARY OF RESPONSES FROM 5,683 DOCTORATE DEPARTMENTS

Type of support	Citizenship and level	U.S. Government Source (excl loans)									Non-Governm		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	O U sou
Fellowships and traineeships	U.S.	176	256	1,631	6,845	2,844	47	2,509	2,283	16,591	8,078	96	2,
	Foreign		5	9	179	57	9		710	969	1,484	1,988	
	Subtotal	176	261	1,640	7,024	2,901	56	2,509	2,993	17,560	9,562	2,084	3,
	First year	55	122	144	831	825	17	623	1,268	3,885	3,802	807	1,
	Beyond	121	139	1,496	6,193	2,076	39	1,886	1,725	13,675	5,760	1,277	2,
Graduate research assistantships	U.S.	1,007	1,592	33	2,267	629	830	4,928	3,462	14,748	8,698		2,
	Foreign	315	766	4	669	96	302	1,893	1,278	5,323	2,356	133	
	Subtotal	1,322	2,358	37	2,936	725	1,132	6,821	4,740	20,071	11,054	133	3,
	First year	150	546	7	515	167	277	1,135	1,105	3,902	3,244	47	
	Beyond	1,172	1,812	30	2,421	558	855	5,686	3,635	16,169	7,810	86	2,
Graduate teaching assistantships	U.S.				40	60		55	71	226	32,773		
	Foreign				10	10		17	16	53	6,541		
	Subtotal				50	70		72	87	279	39,314		
	First year				14	22		20	33	89	12,306		
	Beyond				36	48		52	54	190	27,008		
Other types of support	U.S.	44	1,412	9	86	39	27	86	1,332	3,035	2,701		2,
	Foreign	4	171	0	12	3	9	26	166	391	527	1,229	
	Subtotal	48	1,583	9	98	42	36	112	1,498	3,426	3,228	1,229	2,
	First year	21	615	1	35	6	10	26	550	1,264	1,058	578	
	Beyond	27	968	8	63	36	26	86	948	2,162	2,170	651	1,
All types, total		1,546	4,202	1,686	10,108	3,738	1,224	9,514	9,318	41,336	63,158	3,446	9,
Men	First year	210	1,242	108	978	644	286	1,552	2,604	7,624	16,135	1,297	2,
	Beyond	1,234	2,820	1,229	6,457	1,744	889	6,862	5,627	26,862	34,653	1,843	5,
Women	First year	16	41	44	417	376	18	252	352	1,516	4,275	135	
	Beyond	86	99	305	2,256	974	31	848	735	5,334	8 095	171	1,

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
15,414	28,218	43,632

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U.S. Government			
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total
4,573	6,630	5,011	16,214

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U.S. sources
[3] Since 1969

nce Student Support, Fall 1973
ental Data Sheet

TABLE IV-17
SUMMARY OF RESPONSES FROM 5,683 DOCTORATE DEPARTMENTS

ip and	U.S Government Source (excl loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Other U.S. sources[2]	Self, loans, and family	Total	
	176	256	1,631	6,845	2,844	47	2,509	2,283	16,591	8,078	96	2,918		11,092	27,683
		5	9	179	57	9		710	969	1,484	1,988	842		4,314	5,283
	176	261	1,640	7,024	2,901	56	2,509	2,993	17,560	9,562	2,084	3,760		15,406	32,966
	55	122	144	831	825	17	623	1,268	3,885	3,802	807	1,132		5,741	9,626
	121	139	1,496	6,193	2,076	39	1,886	1,725	13,675	5,760	1,277	2,628		9,665	23,340
	1,007	1,592	33	2,267	629	830	4,928	3,462	14,748	8,698		2,311		11,009	25,757
	315	766	4	669	96	302	1,893	1,278	5,323	2,356	133	691		3,180	8,503
	1,322	2,358	37	2,936	725	1,132	6,821	4,740	20,071	11,054	133	3,002		14,189	34,260
	150	546	7	515	167	277	1,135	1,105	3,902	3,244	47	937		4,228	8,130
	1,172	1,812	30	2,421	558	855	5,686	3,635	16,169	7,810	86	2,065		9,961	26,130
				40	60		55	71	226	32,773		205		32,978	33,204
				10	10		17	16	53	6,541		50		6,591	6,644
				50	70		72	87	279	39,314		255		39,569	39,848
				14	22		20	33	89	12,306		88		12,394	12,483
				36	48		52	54	190	27,008		167		27,175	27,365
	44	1,412	9	86	39	27	86	1,332	3,035	2,701		2,227	27,955	32,883	35,918
	4	171	0	12	3	9	26	166	391	527	1,229	316	6,154	8,226	8,617
	48	1,583	9	98	42	36	112	1,498	3,426	3,228	1,229	2,543	34,109	41,109	44,535
	21	615	1	35	6	10	26	650	1,264	1,058	578	841	14,870	17,317	18,581
	27	968	8	63	36	26	86	948	2,162	2,170	651	1,732	19,239	23,792	25,954
	1,546	4,202	1,686	10,108	3,738	1,224	9,514	9,318	41,336	63,158	3,446	9,560	34,109	10,273	151,609
	210	1,242	108	978	644	286	1,552	2,604	7,624	16,135	1,297	2,485	11,484	31,401	39,025
	1,234	2,820	1,229	6,457	1,744	889	6,862	5,627	26,862	34,653	1,843	5,531	14,991	57,018	83,880
	16	41	44	417	376	18	252	352	1,516	4,275	135	483	3,386	8,279	9,795
	86	99	305	2,256	974	31	848	735	5,334	8 095	171	1,061	4,248	13,575	18,909

me Graduate Students Fall 1973	
Beyond first	Total
28,218	43,632

, and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U.S. Government	Total	Recent doctorals[3]
4,573	6,630	5,011	16,214	9,547

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-18
SUMMARY OF RESPONSES FR
737 DOCTORATE DEPARTMENTS IN EN

Type of support	Citizenship and level	U.S. Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreig source
Fellowships and traineeships	U.S.	120	112	188	348	174	20	407	636	2,005	1,063	13
	Foreign		3	1	21	6	2		86	119	360	500
	Subtotal	120	115	189	369	180	22	407	722	2,124	1,423	513
	First year	53	59	12	44	121	10	137	486	922	760	231
	Beyond	67	56	177	325	59	12	270	236	1,202	663	282
Graduate research assistantships	U.S.	222	830	7	197	52	304	1,132	855	3,599	1,497	
	Foreign	134	562	1	99	33	214	966	704	2,713	891	23
	Subtotal	356	1,392	8	296	85	518	2,098	1,559	6,312	2,388	23
	First year	81	424	0	66	25	158	537	403	1,694	878	9
	Beyond	275	968	8	230	60	360	1,561	1,156	4,618	1,510	14
Graduate teaching assistantships	U.S.				4	6		9	18	37	2,872	
	Foreign				8	0		7	7	22	1,511	
	Subtotal				12	6		16	25	59	4,383	
	First year				4	2		8	11	25	1,760	
	Beyond				8	4		8	14	34	2,623	
Other types of support	U.S.	34	1,036	0	2	6	8	10	463	1,559	414	
	Foreign	4	161	0	0	0	7	9	38	219	193	554
	Subtotal	38	1,197	0	2	6	15	19	501	1,778	607	554
	First year	19	476	0	0	1	3	9	222	730	286	307
	Beyond	19	721	0	2	5	12	10	279	1,048	321	247
All types, total		514	2,704	197	679	277	555	2,540	2,807	10,273	8,801	1,090
Men	First year	146	942	10	105	140	166	672	1,093	3,274	3,564	535
	Beyond	353	1,725	181	536	123	380	1,804	1,643	6,745	4,998	529
Women	First year	7	17	2	9	9	5	19	29	97	120	12
	Beyond	8	20	4	29	5	4	45	42	157	119	14

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
7,792	9,157	16,949

Postdoctorals and/or Research Asso Fall 1973		
Source of support		
U.S. Government		
Fellowships/ traineeships	Research associates	Non-U.S. Government
104	613	245

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions, industry and all other U.S. sources
[3] Since 1969

Science Student Support, Fall 1973
rtmental Data Sheet

TABLE IV-18
SUMMARY OF RESPONSES FROM 737 DOCTORATE DEPARTMENTS IN ENGINEERING

enship and level	U S Government Source (excl loans)									Non-Government Source					Grand total
			HEW							Institutional support	Foreign sources	Other U.S sources	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	120	112	188	348	174	20	407	636	2,005	1,063	13	713		1,789	3,794
		3	1	21	6	2		86	119	360	500	176		1,036	1,155
total	120	115	189	369	180	22	407	722	2,124	1,423	513	889		2,825	4,949
ar	53	59	12	44	121	10	137	486	922	760	231	380		1,371	2,293
	67	56	177	325	59	12	270	236	1,202	663	282	509		1,454	2,656
	222	830	7	197	52	304	1,132	855	3,599	1,497		799		2,296	5,895
	134	562	1	99	33	214	966	704	2,713	891	23	391		1,305	4,018
total	356	1,392	8	296	85	518	2,098	1,559	6,312	2,388	23	1,190		3,601	9,913
ar	81	424	0	66	25	158	537	403	1,694	878	9	431		1,318	3,012
	275	968	8	230	60	360	1,561	1,156	4,618	1,510	14	759		2,283	6,901
				4	6		9	18	37	2,872		33		2,905	2,942
				8	0		7	7	22	1,511		33		1,544	1,566
total				12	6		16	25	59	4,383		66		4,449	4,508
ar				4	2		8	11	25	1,760		18		1,778	1,803
				8	4		8	14	34	2,623		48		2,671	2,705
	34	1,036	0	2	6	8	10	463	1,559	414		517	4,068	4,999	6,558
	4	161	0	0	0	7	9	38	219	193	554	92	2,462	3,301	3,520
total	38	1,197	0	2	6	15	19	501	1,778	607	554	609	6,530	8,300	10,078
ar	19	476	0	0	1	3	9	222	730	286	307	331	3,465	4,389	5,119
	19	721	0	2	5	12	10	279	1,048	321	247	278	3,065	3,911	4,959
	514	2,704	197	679	277	555	2,540	2,807	10,273	8,801	1,090	2,754	6,530	19,175	29,448
ar	146	942	10	105	140	166	672	1,093	3,274	3,564	535	1,120	3,330	8,549	11,823
	353	1,725	181	536	123	380	1,804	1,643	6,745	4,998	529	1,556	2,970	10,053	16,798
ar	7	17	2	9	9	5	19	29	97	120	12	40	135	307	404
	8	20	4	29	5	4	45	42	157	119	14	38	95	266	423

art-time Graduate Students
Fall 1973

year	Beyond first	Total
2	9,157	16,949

rnments
ndustry, and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U.S. Government				
Fellowships/ traineeships	Research associates	Non-U S. Government	Total	Recent doctorals[3]
104	613	245	962	612

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-19
SUMMARY OF RESPONSES FROM 585 DOCT
DEPARTMENTS IN THE PHYSICAL SCIEN

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-Governm		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Ot U sou
Fellowships and traineeships	U S	21	28	291	204	14	5	545	130	1,238	1,164	19	4
	Foreign		0	0	11	1	3		33	48	250	239	
	Subtotal	21	28	291	215	15	8	545	163	1,286	1,414	258	5
	First year	1	10	13	3	3	1	123	63	217	531	91	1
	Beyond	20	18	278	212	12	7	422	100	1,069	883	167	4
Graduate research assistantships	U S	692	522	7	511	49	461	2,610	659	5,511	1,071		3
	Foreign	149	143	0	159	13	80	670	136	1,350	293	23	
	Subtotal	841	665	7	670	62	541	3,280	795	6,861	1,364	23	4
	First year	53	61	0	24	13	90	303	108	652	196	6	
	Beyond	788	604	7	646	49	451	2,977	687	6,209	1,168	17	3
Graduate teaching assistantships	U S				0	3		9	2	14	8,719		
	Foreign				0	0		4	1	5	2,344		
	Subtotal				0	3		13	3	19	11,063		
	First year				0	0		4	1	5	3,970		
	Beyond				0	3		9	2	14	7,093		
Other types of support	U S	7	285	0	3	2	18	27	224	566	237		1
	Foreign	0	10	0	0	0	2	4	2	18	48	117	
	Subtotal	7	295	0	3	2	20	31	226	584	285	117	1
	First year	1	101	0	0	1	6	3	63	175	86	34	
	Beyond	6	194	0	3	1	14	28	163	409	199	83	1
All types, total		869	988	298	888	82	569	3,869	1,187	8,750	14,126	398	1,1
Men	First year	48	162	10	21	16	93	385	219	954	4,102	117	2
	Beyond	769	769	248	747	57	450	3,162	882	7,084	8,178	253	8
Women	First year	7	10	3	6	1	4	48	16	95	681	14	
	Beyond	45	47	37	114	8	22	274	70	617	1,165	14	

Part-time Graduate Students, Fall 1973		
First year	Beyond first	Total
850	3,028	3,878

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U S Government			
Fellowships/ traineeships	Research associates	Non-U S Government	Total
489	2,679	938	4,106

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions industry and all other U S sources
[3] Since 1969

Student Support, Fall 1973
l Data Sheet

TABLE IV-19
SUMMARY OF RESPONSES FROM 585 DOCTORATE DEPARTMENTS IN THE PHYSICAL SCIENCES

	U S Government Source (excl loans)									Non-Government Source					
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	Other U S sources	Self, loans, and family	Total	Grand total
	21	28	291	204	14	5	545	130	1,238	1,164	19	457		1,640	2,878
	0	0	0	11	1	3		33	48	250	239	85		574	622
	21	28	291	215	15	8	545	163	1,286	1,414	258	542		2,214	3,500
	1	10	13	3	3	1	123	63	217	531	91	108		730	947
	20	18	278	212	12	7	422	100	1,069	883	167	434		1,484	2,553
	692	522	7	511	49	461	2,610	659	5,511	1,071		359		1,430	6,941
	149	143	0	159	13	80	670	136	1,350	293	23	63		379	1,729
	841	665	7	670	62	541	3,280	795	6,861	1,364	23	422		1,809	8,670
	53	61	0	24	13	90	303	108	652	196	6	67		269	921
	788	604	7	646	49	451	2,977	687	6,209	1,168	17	355		1,540	7,749
				0	3		9	2	14	8,719		36		8,755	8,769
				0	0		4	1	5	2,344		4		2,348	2,353
				0	3		13	3	19	11,063		40		11,103	11,122
				0	0		4	1	5	3,970		19		3,989	3,994
				0	3		9	2	14	7,093		21		7,114	7,128
	7	285	0	3	2	18	27	224	566	237		157	2,270	2,664	3,230
	0	10	0	0	0	2	4	2	18	48	117	15	453	633	651
	7	295	0	3	2	20	31	226	584	285	117	172	2,723	3,297	3,881
	1	101	0	0	1	6	3	63	175	86	34	46	896	1,062	1,237
	6	194	0	3	1	14	28	163	409	199	83	126	1,827	2,235	2,644
	869	988	298	888	82	569	3,869	1,187	8,750	14,126	398	1,176	2,723	18,423	27,173
	48	162	10	21	16	93	385	219	954	4,102	117	217	784	5,220	6,174
	769	769	248	747	57	450	3,162	882	7,084	8,178	253	859	1,625	10,915	17,999
	7	10	8	6	1	4	48	16	96	681	14	23	112	830	925
	45	47	37	114	8	22	274	70	617	1,165	14	77	202	1,458	2,075

raduate Students all 1973	
yond first	Total
3,028	3,878

ll-other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
489	2,679	938	4,106	2,837

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-20
SUMMARY OF RESPONSES FROM 256
DEPARTMENTS IN THE MATHEMATICA

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreig source
Fellowships and traineeships	U S	0	14	110	67	9	2	333	33	568	518	6
	Foreign	0	1	0	1	0	0		10	12	131	143
	Subtotal	0	15	110	68	9	2	333	43	580	649	149
	First year	0	6	7	6	1	0	97	14	131	282	52
	Beyond	0	9	103	62	8	2	236	29	449	367	97
Graduate research assistantships	U S	25	142	1	37	4	5	288	77	579	310	
	Foreign	12	44	0	8	1	1	98	31	195	107	2
	Subtotal	37	186	1	45	5	6	386	108	774	417	2
	First year	3	37	0	13	1	4	84	18	160	100	1
	Beyond	34	149	1	32	4	2	302	90	614	317	1
Graduate teaching assistantships	U S				1	0		9	5	15	4,627	
	Foreign				0	0		4	0	4	964	
	Subtotal				1	0		13	5	19	5,591	
	First year				0	0		2	1	3	1,607	
	Beyond				1	0		11	4	16	3,984	
Other types of support	U S	0	12	0	1	0	1	9	87	110	171	
	Foreign	0	0	0	0	0	0	5	9	14	68	68
	Subtotal	0	12	0	1	0	1	14	96	124	239	68
	First year	0	6	0	0	0	1	4	49	60	68	28
	Beyond	0	6	0	1	0	0	10	47	64	171	40
All types, total		37	213	111	115	14	9	746	252	1,497	6,896	219
Men	First year	3	46	5	16	2	3	137	73	285	1,598	69
	Beyond	29	152	90	82	9	4	507	147	1,020	4,001	121
Women	First year	0	3	2	3	0	2	50	9	69	459	12
	Beyond	5	12	14	14	3	0	52	23	123	838	17

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
1,648	2,517	4,165

Postdoctorals and/or Research Ass Fall 1973		
Source of support		
U.S Government		Non-U S. Government
Fellowships/ traineeships	Research associates	
32	62	51

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ience Student Support, Fall 1973
mental Data Sheet

TABLE IV-20
SUMMARY OF RESPONSES FROM 256 DOCTORATE DEPARTMENTS IN THE MATHEMATICAL SCIENCES

ship and vel	U S Government Source (excl loans)									Non-Government Source					Grand total
			HEW							Insti-tutional support	Foreign sources	Other U S sources[2]	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	0	14	110	67	9	2	333	33	568	518	6	102		626	1,194
	0	1	0	1	0	0		10	12	131	143	21		295	307
tal	0	15	110	68	9	2	323	43	580	649	149	123		921	1,501
	0	6	7	6	1	0	97	14	131	282	52	34		368	499
	0	9	103	62	8	2	236	29	449	367	97	89		553	1,002
	25	142	1	37	4	5	288	77	579	310		13		323	902
	12	44	0	8	1	1	98	31	195	107	2	11		120	315
tal	37	186	1	45	5	6	386	108	774	417	2	24		443	1,217
	3	37	0	13	1	4	84	18	160	100	1	7		108	268
	34	149	1	32	4	2	302	90	614	317	1	17		335	949
				1	0		9	5	15	4,627		11		4,638	4,653
				0	0		4	0	4	964		1		965	969
tal				1	0		13	5	19	5,591		12		5,603	5,622
				0	0		2	1	3	1,607		3		1,610	1,613
				1	0		11	4	16	3,984		9		3,993	4,009
	0	12	0	1	0	1	9	87	110	171		271	1,906	2,348	2,458
	0	0	0	0	0	0	5	9	14	68	68	49	498	683	697
tal	0	12	0	1	0	1	14	96	124	239	68	320	2,404	3,031	3,155
	0	6	0	0	0	1	4	49	60	68	28	111	1,061	1,268	1,328
	0	6	0	1	0	0	10	47	64	171	40	209	1,343	1,763	1,827
	37	213	111	115	14	9	746	252	1,497	6,896	219	479	2,404	9,998	11,495
	3	46	5	16	2	3	137	73	285	1,598	69	124	841	2,632	2,917
	29	152	90	82	9	4	507	147	1,020	4,001	121	274	1,099	5,495	6,515
	0	3	2	3	0	2	50	9	69	459	12	31	220	722	791
	5	12	14	14	3	0	52	23	123	838	17	50	244	1,149	1,272

t-time Graduate Students Fall 1973		
r	Beyond first	Total
	2,517	4,165

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
32	62	51	145	82

nents
stry[1] and all other U S sources

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-21
SUMMARY OF RESPONSES FROM 3,252 DOC DEPARTMENTS IN THE LIFE SCIENCE

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-Governm		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreign sources	Ot U sou
Fellowships and traineeships	U S	32	54	306	4,908	839	17	517	507	7,180	2,036	24	
	Foreign		0	0	134	25	4		242	405	311	601	
	Subtotal	32	54	306	5,042	864	21	517	749	7,585	2,347	625	
	First year	1	24	19	539	227	5	107	284	1,206	945	254	
	Beyond	31	30	287	4,503	637	16	410	465	6,379	1,402	371	
Graduate research assistantships	U S	67	34	14	1,260	116	47	535	1,319	3,392	3,127		
	Foreign	20	12	1	369	23	4	90	262	781	667	77	
	Subtotal	87	46	15	1,629	139	51	625	1,581	4,173	3,794	77	
	First year	13	9	4	337	36	20	139	398	956	1,093	28	
	Beyond	74	37	11	1,292	103	31	486	1,183	3,217	2,701	49	
Graduate teaching assistantships	U S				34	15		19	23	91	7,426		
	Foreign				2	8		0	5	15	778		
	Subtotal				36	23		19	28	106	8,204		
	First year				10	14		6	9	39	2,623		
	Beyond				26	9		13	19	67	5,581		
Other types of support	U S	3	9	4	66	9	0	13	167	271	622		3
	Foreign	0	0	0	12	2	0	5	55	74	107	319	1
	Subtotal	3	9	4	78	11	0	18	222	345	729	319	4
	First year	1	2	0	31	3	0	8	77	122	287	131	1
	Beyond	2	7	4	47	8	0	10	145	223	442	188	3
All types, total		122	109	325	6,785	1,037	72	1,179	2,580	12,209	15,074	1,021	2,3
Men	First year	13	33	15	649	163	20	209	652	1,754	3,539	358	5
	Beyond	80	69	228	4,261	464	42	708	1,604	7,456	7,817	546	1,2
Women	First year	2	2	8	268	117	5	51	116	569	1,409	55	1
	Beyond	27	5	74	1,607	293	5	211	208	2,430	2,309	62	2

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
2,002	3,745	5,747

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U S Government			
Fellowships/ traineeships	Research associates	Non-U S Government	Total
3,841	3,095	3,497	10,433

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

ce Student Support, Fall 1973
tal Data Sheet

TABLE IV-21
SUMMARY OF RESPONSES FROM 3,252 DOCTORATE DEPARTMENTS IN THE LIFE SCIENCES

and	U S Government Source (excl loans)									Non-Government Source					Grand total
			HEW							Insti-tutional support[1]	Foreign sources	Other U S sources[2]	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	32	54	306	4,908	839	17	517	507	7,180	2,036	24	593		2,653	9,833
		0	0	134	25	4		242	405	311	601	221		1,133	1,538
	32	54	306	5,042	864	21	517	749	7,585	2,347	625	814		3,786	11,371
	1	24	19	539	227	5	107	284	1,206	945	254	260		1,459	2,665
	31	30	287	4,503	637	16	410	465	6,379	1,402	371	554		2,327	8,706
	67	34	14	1,260	116	47	535	1,319	3,392	3,127		821		3,948	7,340
	20	12	1	369	23	4	90	262	781	667	77	167		911	1,692
	87	46	15	1,629	139	51	625	1,581	4,173	3,794	77	988		4,859	9,032
	13	9	4	337	36	20	139	398	956	1,093	28	302		1,423	2,379
	74	37	11	1,292	103	31	486	1,183	3,217	2,701	49	686		3,436	6,653
				34	15		19	23	91	7,426		69		7,495	7,586
				2	8		0	5	15	778		10		788	803
				36	23		19	28	106	8,204		79		8,283	8,389
				10	14		6	9	39	2,623		33		2,656	2,695
				26	9		13	19	67	5,581		46		5,627	5,694
	3	9	4	66	9	0	13	167	271	622		374	7,086	8,082	8,353
	0	0	0	12	2	0	5	55	74	107	319	113	946	1,485	1,559
	3	9	4	78	11	0	18	222	345	729	319	487	8,032	9,567	9,912
	1	2	0	31	3	0	8	77	122	287	131	181	4,103	4,702	4,824
	2	7	4	47	8	0	10	145	223	442	188	306	3,929	4,865	5,088
	122	109	325	6,785	1,037	72	1,179	2,580	12,209	15,074	1,021	2,368	8,032	26,495	38,704
	13	33	15	649	163	20	209	652	1,754	3,539	358	594	2,885	7,376	9,130
	80	69	228	4,261	464	42	708	1,604	7,456	7,817	546	1,296	2,927	12,586	20,042
	2	2	8	268	117	5	51	116	569	1,409	55	182	1,218	2,864	3,433
	27	5	74	1,607	293	5	211	208	2,430	2,309	62	296	1,002	3,669	6,099

Graduate Students Fall 1973	
Beyond first	Total
3,745	5,747

d all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
3,841	3,095	3,497	10,433	5,768

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-22
SUMMARY OF RESPONSES FROM 180 D
DEPARTMENTS IN PSYCHOLO

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreig source
Fellowships and traineeships	U S	1	17	115	823	1,183	2	227	437	2,805	821	1
	Foreign		0	0	3	6	0		20	29	48	25
	Subtotal	1	17	115	826	1,189	2	227	457	2,834	869	26
	First year	0	2	9	199	323	1	49	87	670	227	3
	Beyond	1	15	106	627	866	1	178	370	2,164	642	23
Graduate research assistantships	U S	0	48	1	210	292	5	120	162	838	811	
	Foreign	0	2	0	20	19		9	5	55	27	1
	Subtotal	0	50	1	230	311	5	129	167	893	838	1
	First year	0	9	0	60	72	2	24	39	206	269	0
	Beyond	0	41	1	170	239	3	105	128	687	569	1
Graduate teaching assistantships	U S				1	30		4	1	36	2,957	
	Foreign				0	1		0	0	1	124	
	Subtotal				1	31		4	1	37	3,081	
	First year				0	5		0	0	5	771	
	Beyond				1	26		4	1	32	2,310	
Other types of support	U S	0	22	2	8	18	0	11	152	213	557	
	Foreign	0	0	0	0	1	0	0	4	5	17	16
	Subtotal	0	22	2	8	19	0	11	156	218	574	16
	First year	0	8	0	2	0	0	0	34	44	109	3
	Beyond	0	14	2	6	19	0	11	122	174	465	13
All types, total		1	89	118	1,065	1,550	7	371	781	3,982	5,362	43
Men	First year	0	14	5	152	236	1	41	104	553	813	4
	Beyond	1	61	69	521	728	4	197	435	2,016	2,631	22
Women	First year	0	5	4	109	164	2	32	56	372	563	2
	Beyond	0	9	40	283	422	0	101	186	1,041	1,355	15

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
592	2,364	2,956

Postdoctorals and/or Research Ass Fall 1973		
Source of support		
U S Government		Non-U S Government
Fellowships/ traineeships	Research associates	
54	76	60

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

cience Student Support, Fall 1973
tmental Data Sheet

TABLE IV-22
SUMMARY OF RESPONSES FROM 180 DOCTORATE DEPARTMENTS IN PSYCHOLOGY

nship and level	U S Government Source (excl loans)									Non-Government Source					Grand total
	AEC	DOD	HEW NDEA	HEW NIH	HEW Other	[illegible]A	NSF	Other	Total	Institutional support	Foreign sources	Other U S sources	Self, loans, and family	Total	
	1	17	115	823	1,183	2	227	437	2,805	821	1	222		1,044	3,849
		0	0	3	6	0		20	29	48	25	9		82	111
total	1	17	115	826	1,189	2	227	457	2,834	869	26	231		1,126	3,960
r	0	2	9	199	323	1	49	87	670	227	3	41		271	941
	1	15	106	627	866	1	178	370	2,164	642	23	190		855	3,019
	0	48	1	210	292	5	120	162	838	811		100		911	1,749
	0	2	0	20	19		9	5	55	27	1	4		32	87
total	0	50	1	230	311	5	129	167	893	838	1	104		943	1,836
r	0	9	0	60	72	2	24	39	206	269	0	44		313	519
	0	41	1	170	239	3	105	128	687	569	1	60		630	1,317
				1	30		4	1	36	2,957		12		2,969	3,005
				0	1		0	0	1	124				124	125
total				1	31		4	1	37	3,081		12		3,093	3,130
r				0	5		0	0	5	771		6		777	782
				1	26		4	1	32	2,310		6		2,316	2,348
	0	22	2	8	18	0	11	152	213	557		587	3,131	4,275	4,488
	0	0	0	0	1	0	0	4	5	17	16	13	295	341	346
total	0	22	2	8	19	0	11	156	218	574	16	600	3,426	4,616	4,834
r	0	8	0	2	0	0	0	34	44	109	3	50	1,212	1,374	1,418
	0	14	2	6	19	0	11	122	174	465	13	550	2,214	3,242	3,416
	1	89	118	1,065	1,550	7	371	781	3,982	5,362	43	947	3,426	9,778	13,760
r	0	14	5	152	236	1	41	104	553	813	4	75	706	1,598	2,151
	1	61	69	521	728	4	197	435	2,016	2,631	22	553	1,393	4,599	6,615
r	0	5	4	109	164	2	32	56	372	563	2	66	506	1,137	1,509
	0	9	40	283	422	0	101	186	1,041	1,355	15	253	821	2,444	3,485

art-time Graduate Students
Fall 1973

ear	Beyond first	Total
	2,364	2 956

nments
dustry and all other U S sources

Postdoctorals and/or Research Associates
Fall 1973

Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
54	76	60	190	122

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-23
SUMMARY OF RESPONSES FROM 659 DOCT[ORAL] DEPARTMENTS IN THE SOCIAL SCIENC[ES]

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-Governm		
				HEW							Insti-tutional support[1]	Foreign sources	Oth U S sour
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total			
Fellowships and traineeships	U S	2	31	620	495	600	1	480	539	2,768	2,475	33	83
	Foreign		1	8	9	19	0		319	356	383	480	33
	Subtotal	2	32	628	504	619	1	480	858	3,124	2,858	513	1,16
	First year	0	21	84	40	125	0	110	333	713	1,056	176	30
	Beyond	2	11	544	464	494	1	370	525	2,411	1,802	337	85
Graduate research assistantships	U S	1	16	3	50	116	8	243	390	827	1,873		21
	Foreign	0	3	2	14	7	3	60	140	229	370	7	5
	Subtotal	1	19	5	64	123	11	303	530	1,056	2,243	7	27
	First year	0	6	3	15	20	3	48	139	234	707	3	
	Beyond	1	13	2	49	103	8	255	391	822	1,536	4	18
Graduate teaching assistantships	U S					6		5	22	33	6,139		
	Foreign					1		2	3	6	816		
	Subtotal					7		7	25	39	6,955		
	First year					1		0	11	12	1,557		
	Beyond					6		7	14	27	5,398		3
Other types of support	U S	0	48	3	6	4	0	16	239	316	700		32
	Foreign	0	0	0	0	0	0	3	58	61	94	155	
	Subtotal	0	48	3	6	4	0	19	297	377	794	155	35
	First year	0	22	1	2	1	0	2	105	133	222	75	
	Beyond	0	26	2	4	3	0	17	192	244	572	80	20
All types, total		3	99	636	574	753	12	809	1,710	4,596	12,850	675	1,83
Men	First year	0	45	63	35	74	3	108	462	790	2,504	214	35
	Beyond	2	44	413	308	363	9	484	916	2,539	7,009	372	9
Women	First year	0	4	25	22	73	0	52	126	302	1,038	40	1
	Beyond	1	6	135	209	243	0	165	206	965	2,299	49	3

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
2,445	7,271	9,716

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U S Government			
Fellowships/ traineeships	Research associates	Non-U S Government	Total
53	105	219	377

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

nce Student Support, Fall 1973
ntal Data Sheet

TABLE IV-23
SUMMARY OF RESPONSES FROM 659 DOCTORATE DEPARTMENTS IN THE SOCIAL SCIENCES

p and	U S Government Source (excl loans)									Non-Government Source					
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	Other U S sources	Self, loans, and family	Total	Grand total
	2	31	620	495	600	1	480	539	2,768	2,475	33	831		3,339	6,107
		1	8	9	19	0		319	356	383	480	330		1,193	1,549
	2	32	628	504	619	1	480	858	3,124	2,858	513	1,161		4,532	7,656
	0	21	84	40	125	0	110	333	713	1,056	176	309		1,541	2,254
	2	11	544	464	494	1	370	525	2,411	1,802	337	852		2,991	5,402
	1	16	3	50	116	8	243	390	827	1,873		219		2,092	2,919
	0	3	2	14	7	3	60	140	229	370	7	55		432	661
	1	19	5	64	123	11	303	530	1,056	2,243	7	274		2,524	3,580
	0	6	3	15	20	3	48	139	234	707	3	86		796	1,030
	1	13	2	49	103	8	255	391	822	1,536	4	188		1,728	2,550
					6		5	22	33	6,139		44		6,183	6,216
					1		2	3	6	816		2		818	824
					7		7	25	39	6,955		46		7,001	7,040
					1		0	11	12	1,557		9		1,566	1,578
					6		7	14	27	5,398		37		5,435	5,462
	0	48	3	6	4	0	16	239	316	700		320	9,461	10,481	10,797
	0	0	0	0	0	0	3	58	61	94	155	34	1,495	1,778	1,839
	0	48	3	6	4	0	19	297	377	794	155	354	10,956	12,259	12,636
	0	22	1	2	1	0	2	105	133	222	75	91	4,120	4,508	4,641
	0	26	2	4	3	0	17	192	244	572	80	263	6,836	7,751	7,995
	3	99	636	574	753	12	809	1,710	4,596	12,850	675	1,835	10,956	26,316	30,912
	0	45	63	35	74	3	108	462	790	2,504	214	354	2,931	6,003	6,793
	2	44	413	308	363	9	484	916	2,539	7,009	372	993	4,957	13,331	15,870
	0	4	25	22	73	0	52	126	302	1,038	40	141	1,189	2,408	2,710
	1	6	195	209	249	0	165	206	965	2,299	49	347	1,879	4,574	5,539

me Graduate Students
Fall 1973

	Beyond first	Total
	7,271	9,716

and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
53	105	219	377	125

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Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-24
SUMMARY OF RESPONSES FROM 14 D
DEPARTMENTS IN ALL OTHER SC

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreig source
Fellowships and traineeships	U S	0	0	1	0	25	0	0	1	27	1	0
	Foreign	-	0	0	0	0	0	-	0	0	1	0
	Subtotal	0	0	1	0	25	0	0	1	27	2	0
	First year	0	0	0	0	25	0	0	1	26	1	0
	Beyond	0	0	1	0	0	0	0	0	1	1	0
Graduate research assistantships	U S	0	0	0	2	0	0	0	0	2	9	
	Foreign	0	0	0	0	0	0	0	0	0	1	0
	Subtotal	0	0	0	2	0	0	0	0	2	10	0
	First year	0	0	0	0	0	0	0	0	0	1	0
	Beyond	0	0	0	2	0	0	0	0	2	9	0
Graduate teaching assistantships	U S				0	0		0	0	0	33	
	Foreign				0	0		0	0	0	4	
	Subtotal				0	0		0	0	0	37	
	First year				0	0		0	0	0	18	
	Beyond				0	0		0	0	0	19	
Other types of support	U S	0	0	0	0	0	0	0	0	0	0	
	Foreign	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0	0
	First year	0	0	0	0	0	0	0	0	0	0	0
	Beyond	0	0	0	0	0	0	0	0	0	0	0
All types, total		0	0	1	2	25	0	0	1	29	49	0
Men	First year	0	0	0	0	13	0	0	1	14	15	0
	Beyond	0	0	0	2	0	0	0	0	2	19	0
Women	First year	0	0	0	0	12	0	0	0	12	5	0
	Beyond	0	0	1	0	0	0	0	0	1	10	0

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
85	136	221

Postdoctorals and/or Research Ass Fall 1973		
Source of support		
U S. Government		
Fellowships/ traineeships	Research associates	Non-U S Government
0	0	1

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions industry and all other U S sources
[3] Since 1969

Science Student Support, Fall 1973
rtmental Data Sheet

TABLE IV-24
SUMMARY OF RESPONSES FROM 14 DOCTORATE DEPARTMENTS IN ALL OTHER SCIENCES

zenship and level	U S Government Source (excl. loans)									Non-Government Source					Grand total
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	Other U.S sources[2]	Self, loans, and family	Total	
	0	0	1	0	25	0	0	1	27	1	0	0		1	28
n		0	0	0	0	0		0	0	1	0	0		1	1
btotal	0	0	1	0	25	0	0	1	27	2	0	0		2	29
ear	0	0	0	0	25	0	0	1	26	1	0	0		1	27
d	0	0	1	0	0	0	0	0	1	1	0	0		1	2
	0	0	0	2	0	0	0	0	2	9		0		9	11
n	0	0	0	0	0	0	0	0	0	1	0	0		1	1
btotal	0	0	0	2	0	0	0	0	2	10	0	0		10	12
ear	0	0	0	0	0	0	0	0	0	1	0	0		1	1
d	0	0	0	2	0	0	0	0	2	9	0	0		9	11
				0	0		0	0	0	33		0		33	33
n				0	0		0	0	0	4		0		4	4
btotal				0	0		0	0	0	37		0		37	37
ear				0	0		0	0	0	18		0		18	18
d				0	0		0	0	0	19		0		19	19
	0	0	0	0	0	0	0	0	0	0		1	33	34	34
n	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5
btotal	0	0	0	0	0	0	0	0	0	0	0	1	38	39	39
ear	0	0	0	0	0	0	0	0	0	0	0	1	13	14	14
d	0	0	0	0	0	0	0	0	0	0	0	0	25	25	25
	0	0	1	2	25	0	0	1	29	49	0	1	38	88	117
ear	0	0	0	0	13	0	0	1	14	15	0	1	7	23	37
d	0	0	0	2	0	0	0	0	2	19	0	0	20	39	41
ear	0	0	0	0	12	0	0	0	12	5	0	0	6	11	23
d	0	0	1	0	0	0	0	0	1	10	0	0	5	15	16

Part-time Graduate Students Fall 1973		
t year	Beyond first	Total
5	136	221

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals[3]
0	0	1	1	1

vernments
, industry and all other U S sources

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-25
SUMMARY OF RESPONSES FROM 2,452 DOCT DEPARTMENTS IN MEDICAL SCHOOL

Type of support	Citizenship and level	U.S Government Source (excl loans)									Non-Governm		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreign sources	Oth U.S sour
Fellowships and traineeships	U.S.	16	26	55	3,008	563	5	85	223	3,981	1,083	11	27
	Foreign		0	0	93	11	1		42	147	165	101	5
	Subtotal	16	26	55	3,101	574	6	85	265	4,128	1,248	112	32
	First year	0	12	4	377	138	2	13	94	640	549	52	10
	Beyond	16	14	51	2,724	436	4	72	171	3,488	699	60	22
Graduate research assistantships	U.S	13	11	2	568	47	8	38	54	741	295		11
	Foreign	4	2	0	139	7	0	12	9	173	48	5	2
	Subtotal	17	13	2	707	54	8	50	63	914	343	5	14
	First year	4	3	0	168	19	1	11	11	217	120	1	3
	Beyond	13	10	2	539	35	7	39	52	697	223	4	10
Graduate teaching assistantships	U.S				19	13		8	14	54	1,004		
	Foreign				1	3		0	4	8	186		
	Subtotal				20	16		8	18	62	1,190		1
	First year				8	10		3	8	29	365		
	Beyond				12	6		5	10	33	825		
Other types of support	U.S	0	6	0	41	5	1	3	44	100	189		8
	Foreign	0	0	0	9	1	0	5	1	16	32	36	3
	Subtotal	0	6	0	50	6	1	8	45	116	221	36	11
	First year	0	2	0	22	2	0	5	14	45	112	10	3
	Beyond	0	4	0	28	4	1	3	31	71	109	26	7
All types, total		33	45	57	3,878	650	15	151	391	5,220	3,002	153	59
Men	First year	4	15	2	418	95	3	26	103	666	806	52	12
	Beyond	19	27	41	2,430	283	10	86	229	3,125	1,414	77	29
Women	First year	0	2	2	157	74	0	6	24	265	340	11	6
	Beyond	10	1	12	873	198	2	33	35	1,164	442	13	11

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
491	856	1,347

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U S Government			
Fellowships/ traineeships	Research associates	Non-U S Government	Total
3,415	1,775	2,677	7,867

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions industry and all other U S sources
[3] Since 1969

ce Student Support, Fall 1973
tal Data Sheet

TABLE IV-25
SUMMARY OF RESPONSES FROM 2,452 DOCTORATE DEPARTMENTS IN MEDICAL SCHOOLS

and	U S Government Source (excl. loans)									Non-Government Source					Grand total
			HEW							Insti-tutional support	Foreign sources	Other U S sources	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	16	26	55	3,008	563	5	85	223	3,981	1,083	11	270		1,364	5,345
		0	0	93	11	1		42	147	165	101	57		323	470
	16	26	55	3,101	574	6	85	265	4,128	1,248	112	327		1,687	5,815
	0	12	4	377	138	2	13	94	640	549	52	107		708	1,348
	16	14	51	2,724	436	4	72	171	3,488	699	60	220		979	4,467
	13	11	2	568	47	8	38	54	741	295		115		410	1,151
	4	2	0	139	7	0	12	9	173	48	6	25		78	251
	17	13	2	707	54	8	50	63	914	343	5	140		488	1,402
	4	3	0	168	19	1	11	11	217	120	1	36		157	374
	13	10	2	539	35	7	39	52	697	223	4	104		331	1,028
				19	13		8	14	54	1,004		6		1,010	1,064
				1	3		0	4	8	186		8		194	202
				20	16		8	18	62	1,190		14		1,204	1,266
				8	10		3	8	29	365		6		371	400
				12	6		5	10	33	825		8		833	866
	0	6	0	41	5	1	3	44	100	189		85	2,117	2,391	2,491
	0	0	0	9	1	0	5	1	16	32	36	31	200	299	315
	0	6	0	50	6	1	8	45	116	221	36	116	2,317	2,690	2,806
	0	2	0	22	2	0	5	14	45	112	10	37	1,342	1,501	1,546
	0	4	0	28	4	1	3	31	71	109	26	79	975	1,189	1,260
	33	45	57	3,878	650	15	151	391	5,220	3,002	153	597	2,317	6,069	11,289
	4	15	2	418	95	3	26	103	666	806	52	124	834	1,816	2,482
	19	27	41	2,430	283	10	86	229	3,125	1,414	77	299	662	2,452	5,577
	0	2	2	157	74	0	6	24	265	340	11	62	508	921	1,186
	10	1	12	873	198	2	33	35	1,164	442	13	112	313	880	2,044

ne Graduate Students Fall 1973	
Beyond first	Total
856	1,347

and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government		Non-U S Government	Total	Recent doctorals[3]
Fellowships/ traineeships	Research associates			
3,415	1,775	2,677	7,867	4,098

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-26
SUMMARY OF RESPONSES FROM 4,49
DEPARTMENTS IN PUBLIC SCH

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-G	
				HEW								
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Insti-tutional support[1]	Foreig source
Fellowships and traineeships	U S	132	195	1,061	4,220	1,852	37	1,248	1,845	10,590	4,091	71
	Foreign		3	7	103	44	6		536	699	554	1,252
	Subtotal	132	198	1,068	4,323	1,896	43	1,248	2,381	11,289	4,645	1,323
	First year	46	96	93	567	626	9	307	1,010	2,754	1,743	543
	Beyond	86	102	975	3,756	1,270	34	941	1,371	8,535	2,902	780
Graduate research assistantships	U S	749	971	25	1,634	549	542	3,266	3,187	10,923	8,457	
	Foreign	197	373	3	500	72	148	1,104	1,029	3,426	2,173	136
	Subtotal	946	1,344	28	2,134	621	690	4,370	4,216	14,349	10,630	136
	First year	110	286	7	398	156	175	822	1,085	3,039	3,383	50
	Beyond	836	1,058	21	1,736	465	515	3,548	3,131	11,310	7,247	86
Graduate teaching assistantships	U S				35	59		52	77	223	29,475	
	Foreign				9	10		10	20	49	5,181	
	Subtotal				44	69		62	97	272	34,656	
	First year				11	26		25	39	101	11,495	
	Beyond				33	43		37	58	171	23,161	
Other types of support	U S	39	1,637	6	65	40	25	47	1,228	3,087	2,359	
	Foreign	4	173	0	9	2	7	20	167	382	455	88
	Subtotal	43	1,810	6	74	42	32	67	1,395	3,469	2,814	88
	First year	16	752	1	23	6	10	23	534	1,365	938	41
	Beyond	27	1,058	5	51	36	22	44	861	2,104	1,876	47
All types, total		1,121	3,352	1,102	6,575	2,628	765	5,747	8,089	29,379	52,745	2,34
Men	First year	162	1,111	75	697	505	180	997	2,338	6,065	13,773	89
	Beyond	882	2,161	805	4,177	1,163	547	4,075	4,805	18,615	28,517	1,21
Women	First year	10	23	26	302	309	14	180	330	1,194	3,786	11
	Beyond	67	57	196	1,399	651	24	495	616	3,505	6,669	12

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
12,121	19,632	31,753

Postdoctorals and/or Research Ass Fall 1973		
Source of support		
U S Government		Non-U S Government
Fellowships/ traineeships	Research associates	
2,171	3,886	2,967

[1] Includes institution's and State and local governments
[2] Includes support from nonprofit institutions industry and all other U S sources
[3] Since 1969

cience Student Support, Fall 1973
mental Data Sheet

TABLE IV-26
SUMMARY OF RESPONSES FROM 4,496 GRADUATE DEPARTMENTS IN PUBLIC SCHOOLS

ship and evel	U S Government Source (excl loans)									Non-Government Source					Grand total
			HEW							Insti-tutional support	Foreign sources	Other U S sources	Self, loans, and family	Total	
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total						
	132	195	1,061	4,220	1,852	37	1,248	1,845	10,590	4,091	71	1,713		5,875	16,465
		3	7	103	44	6		536	699	554	1,252	488		2,294	2,993
otal	132	198	1,068	4,323	1,896	43	1,248	2,381	11,289	4,645	1,323	2,201		8,169	19,458
	46	86	93	567	626	9	307	1,010	2,754	1,743	543	699		2,985	5,739
	86	102	975	3,756	1,270	34	941	1,371	8,535	2,902	780	1,502		5,184	13,719
	749	971	25	1,634	549	542	3,266	3,187	10,923	8,457		1,992		10,449	21,372
	197	373	3	500	72	148	1,104	1,029	3,426	2,173	136	526		2,835	6,261
otal	946	1,344	28	2,134	621	690	4,370	4,216	14,349	10,630	136	2,518		13,284	27,633
	110	286	7	398	156	175	822	1,085	3,039	3,383	50	846		4,279	7,318
	836	1,058	21	1,736	465	515	3,548	3,131	11,310	7,247	86	1,672		9,005	20,315
				35	59		52	77	223	29,475		177		29,652	29,875
				9	10		10	20	49	5,181		38		5,219	5,268
otal				44	69		62	97	272	34,656		215		34,871	35,143
				11	26		25	39	101	11,495		81		11,576	11,677
				33	43		37	58	171	23,161		134		28,295	23,466
	39	1,637	6	65	40	25	47	1,228	3,087	2,359		1,640	24,025	28,024	31,111
	4	173	0	9	2	7	20	167	382	455	881	222	4,736	6,294	6,676
otal	43	1,810	6	74	42	32	67	1,395	3,469	2,814	881	1,862	28,761	34,318	37,787
	16	752	1	23	6	10	23	534	1,365	938	411	608	13,072	15,029	16,394
	27	1,058	5	51	36	22	44	861	2,104	1,876	470	1,254	15,689	19,289	21,393
	1,121	3,352	1,102	6,575	2,628	765	5,747	8,089	29,379	52,745	2,340	6,796	28,761	90,642	120,021
	162	1,111	75	697	505	180	997	2,338	6,065	13,773	893	1,876	10,063	26,605	32,670
	882	2,161	805	4,177	1,163	547	4,075	4,805	18,615	28,517	1,213	3,875	12,334	45,939	64,554
	10	23	26	302	309	14	180	330	1,194	3,786	111	358	3,009	7,264	8,458
	67	57	196	1,399	651	24	495	616	3,505	6,669	123	687	3,355	10,834	14,339

rt-time Graduate Students Fall 1973		
ar	Beyond first	Total
	19,632	31,753

ments
ustry and all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
2,171	3,886	2,967	9,024	5,421

Survey of Graduate Science Student Support, Fall 1973
Departmental Data Sheet

TABLE IV-27
SUMMARY OF RESPONSES FROM 2,063 GRAD
DEPARTMENTS IN PRIVATE SCHOOLS

Type of support	Citizenship and level	U S Government Source (excl loans)									Non-Governm		
				HEW									
		AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support[1]	Foreign sources	Oth U S sour
Fellowships and traineeships	U S	52	132	582	2,686	1,133	12	1,290	617	6,504	4,325	35	1,3
	Foreign		2	2	79	17	3		206	309	974	802	3
	Subtotal	52	134	584	2,765	1,150	15	1,290	823	6,813	5,299	837	1,7
	First year	12	89	59	288	236	9	333	397	1,423	2,284	311	5
	Beyond	40	45	525	2,477	914	6	957	426	5,390	3,015	526	1,1
Graduate research assistantships	U S	266	660	8	654	109	301	1,733	582	4,313	1,120		4
	Foreign	118	398	1	173	30	159	818	305	2,002	348	21	1
	Subtotal	384	1,058	9	827	139	460	2,551	887	6,315	1,468	21	6
	First year	43	279	0	124	23	110	367	183	1,129	454	6	1
	Beyond	341	779	9	703	116	350	2,184	704	5,186	1,014	15	4
Graduate teaching assistantships	U S				5	7		16	11	39	6,403		
	Foreign				1	0		9	2	12	1,730		
	Subtotal				6	7		25	13	51	8,133		
	First year				3	0		4	10	17	2,722		
	Beyond				3	7		21	3	34	5,411		
Other types of support	U S	5	161	3	21	5	2	63	322	582	693		7
	Foreign	0	17	0	3	1	2	6	27	56	110	462	1
	Subtotal	5	178	3	24	6	4	69	349	638	803	462	8
	First year	5	71	0	12	1	0	25	150	264	350	240	2
	Beyond	0	107	3	12	5	4	44	199	374	453	222	6
All types, total		441	1,370	596	3,622	1,302	479	3,935	2,072	13,817	15,703	1,320	3,3
Men	First year	54	420	41	294	159	115	634	653	2,370	4,573	508	8
	Beyond	361	888	428	2,313	609	353	2,847	1,168	8,967	7,995	700	1,8
Women	First year	6	19	18	133	101	4	95	67	1,237	49	1	
	Beyond	20	43	109	882	433	7	359	164	2,017	1,988	63	4

Part-time Graduate Students Fall 1973		
First year	Beyond first	Total
8,257	13,634	21,891

Postdoctorals and/or Research Associates Fall 1973			
Source of support			
U S Government			
Fellowships/ traineeships	Research associates	Non-U S Government	Total
2,424	2,805	2,105	7,334

[1] Includes institutions and State and local governments
[2] Includes support from nonprofit institutions, industry, and all other U S sources
[3] Since 1969

e Student Support, Fall 1973
al Data Sheet

TABLE IV-27
SUMMARY OF RESPONSES FROM 2,063 GRADUATE DEPARTMENTS IN PRIVATE SCHOOLS

	U S Government Source (excl loans)									Non-Government Source					
			HEW												
	AEC	DOD	NDEA	NIH	Other	NASA	NSF	Other	Total	Institutional support	Foreign sources	Other U S sources	Self, loans, and family	Total	Grand total
	52	132	582	2,686	1,133	12	1,290	617	6,504	4,325	35	1,345		5,705	12,209
		2	2	79	17	3		206	309	974	802	383		2,159	2,468
	52	134	584	2,765	1,150	15	1,290	823	6,813	5,299	837	1,728		7,864	14,677
	12	89	59	288	236	9	333	397	1,423	2,284	311	530		3,125	4,548
	40	45	525	2,477	914	6	957	426	5,390	3,015	526	1,198		4,739	10,129
	266	660	8	654	109	301	1,733	582	4,313	1,120		479		1,599	5,912
	118	398	1	173	30	159	818	305	2,002	348	21	195		564	2,566
	384	1,058	9	827	139	460	2,551	887	6,315	1,468	21	674		2,163	8,478
	43	279	0	124	23	110	367	183	1,129	454	6	196		656	1,785
	341	779	9	703	116	350	2,184	704	5,186	1,014	15	478		1,507	6,693
				5	7		16	11	39	6,403		56		6,459	6,498
				1	0		9	2	12	1,730		12		1,742	1,754
				6	7		25	13	51	8,133		68		8,201	8,252
				3	0		4	10	17	2,722		24		2,746	2,763
				3	7		21	3	34	5,411		44		5,455	5,489
	5	161	3	21	5	2	63	322	582	693		748	8,082	9,523	10,105
	0	17	0	3	1	2	6	27	56	110	462	105	2,052	2,729	2,785
	5	178	3	24	6	4	69	349	638	803	462	853	10,134	12,252	12,890
	5	71	0	12	1	0	25	150	264	350	240	285	4,483	5,358	5,622
	0	107	3	12	5	4	44	199	374	453	222	568	5,651	6,894	7,268
	441	1,370	596	3,622	1,302	479	3,935	2,072	13,817	15,703	1,320	3,323	10,134	30,480	44,297
	54	420	41	294	159	115	634	653	2,370	4,573	508	860	3,331	9,272	11,642
	361	888	428	2,313	609	353	2,847	1,168	8,967	7,905	700	1,869	4,289	14,763	23,730
	6	19	18	133	101	4	95	87	463	1,237	49	175	1,152	2,613	3,076
	20	43	109	882	433	7	959	164	2,017	1,988	63	419	1,362	3,832	5,849

Graduate Students Fall 1973	
Beyond first	Total
13,634	21,891

d all other U S sources

Postdoctorals and/or Research Associates Fall 1973				
Source of support				
U S Government				
Fellowships/ traineeships	Research associates	Non-U S Government	Total	Recent doctorals
2,424	2,805	2,105	7,334	4,191

INSTRUCTIONS FOR COMPLETING THE DEPARTMENTAL DATA SHEET

GENERAL:

This form is being mailed to all institutions of higher education in the U. S. that confer doctoral-level degrees in at least one of the following fields of science:

- Engineering
  - Aeronautical
  - Agricultural
  - Chemical
  - Civil
  - Electrical
  - Engineering science
  - Industrial
  - Mechanical
  - Metallurgical and materials
  - Mining
  - Nuclear
  - Petroleum
  - Other engineering
- Physical sciences
  - Astronomy
  - Atmospheric sciences
  - Chemistry
  - Geosciences
  - Oceanography
  - Physics
- Mathematical sciences
  - Applied mathematics
  - Mathematics
  - Statistics
- Life sciences
  - Agriculture
  - Anatomy
  - Biochemistry
  - Biology
  - Botany
  - Clinical medical sciences
  - Ecology
  - Genetics
  - Microbiology
  - Pharmacology
  - Physiology
  - Zoology
  - Other life sciences
- Psychology
  - Clinical psychology
  - Experimental psychology
  - Human development
  - Physiological psychology
  - Social psychology
  - Other psychology
- Social sciences
  - Agricultural economics
  - Anthropology
  - Economics (except agricultural)
  - Geography
  - History and philosophy of science
  - Linguistics
  - Political science
  - Sociology

Item 4–
Highest degree offered.
Check the box which refers to the highest degree offered by this science department in October 1972.

Item 5–
A *full-time* graduate student is defined here as a *bona fide* graduate student enrolled for an advanced degree (not a regular staff member, e.g., an instructor) who is engaged in training activities in his field of science; these activities may embrace any appropriate combination of study, teaching, and research. (Some institutions use the phrase "geographical full-time student" to describe such students). All other graduate students enrolled for advanced degrees are considered *part time* and should be reported under Item 7.

A *first-year* graduate student is defined for this program as one who will have completed *less than one normal year* of graduate study as of the beginning of the Fall term of 1972. All other students should be considered beyond first level.

Insert in each appropriate box the number of students who are simultaneously (a) full-time graduate students (defined above), (b) enrolled in an advanced degree program, and (c) receiving a total stipend of *$1200* or more–*not counting tuition and excluding personal, family, and loan sources*–during the 1972-1973 academic year.

All students meeting criteria (a) and (b), but not (c), should be counted under "Self, Loans, and Family." Full-time graduate students working for an advanced degree who are employees of another organization, on leave of absence, and whose major support is provided by their employer, should be listed under "Other U. S. Sources." If a graduate student receives stipend support

Institutional Grant should appear under NSF, not under "Institutional Support"). Institutional Support refers to support from "This" institution, as well as from State and local governments.

Students are to be classified according to citizenship, i.e., *U. S.* citizens (or nationals, e.g., native residents of a possession of the U. S. such as American Samoa), and *foreign* students. Applicants for U. S. citizenship are to be considered as "foreign" until the date their citizenship becomes effective.

Each row total given under *ALL SOURCES* is to be split into two components, *First Year* and *Beyond First*. Thus *every* full-time graduate student enrolled for an advanced degree is counted only once by a major source of support and once again in a separate breakout by level (First Year or Beyond First) of study.

Item 6–
Insert in the appropriate box the number of full-time students who were enrolled in this department in Fall 1971. If the exact data are not at hand, please give a reasonable estimate.

Item 7–
The numbers of graduate students who are working for advanced degrees, but who are not pursuing graduate work full time, are enumerated under the entries for *part time*. Do not include "special" students who are *not* enrolled for advanced degrees or students who have left your institution but are completing their theses while engaged in other activities.

Item 8–
Under *Postdoctorals* and/or *Research Associates*, include individuals with doctorates (including foreign degrees that are equivalent to U. S. doctorates) who devote *full time* to research activities or study in the department under temporary appointments carry-

Engineering science
Industrial
Mechanical
Metallurgical and materials
Mining
Nuclear
Petroleum
Other engineering

Physics

Mathematical sciences
Applied mathematics
Mathematics
Statistics

Ecology
Genetics
Microbiology
Pharmacology
Physiology
Zoology
Other life sciences

Psychology
Clinical psychology
Experimental psychology

Agricultural economics
Anthropology
Economics (except agricultural)
Geography
History and philosophy of science
Linguistics
Political science
Sociology

Item 4–
Highest degree offered.
Check the box which refers to the highest degree offered by this science department in October 1972.

Item 5–
A *full-time* graduate student is defined here as a *bona fide* graduate student enrolled for an advanced degree (not a regular staff member, e.g., an instructor) who is engaged in training activities in his field of science; these activities may embrace any appropriate combination of study, teaching, and research. (Some institutions use the phrase "geographical full-time student" to describe such students). All other graduate students enrolled for advanced degrees are considered *part time* and should be reported under Item 7.

A *first-year* graduate student is defined for this program as one who will have completed *less than one normal year* of graduate study as of the beginning of the Fall term of 1972. All other students should be considered beyond first level.

Insert in each appropriate box the number of students who are simultaneously (a) full-time graduate students (defined above), (b) enrolled in an advanced degree program, and (c) receiving a total stipend of *$1200* or more–*not counting tuition and excluding personal, family, and loan sources*–during the 1972-1973 academic year.

All students meeting criteria (a) and (b), but not (c), should be counted under "Self, Loans, and Family." Full-time graduate students working for an advanced degree who are employees of another organization, on leave of absence, and whose major support is provided by their employer, should be listed under "Other U. S. Sources." If a graduate student receives stipend support from more than one source, choose the *major* source. For cases of two or more equivalent sources choose one *major* source category so that *using only whole numbers* the departmental data sheet will give a reasonably accurate *average* support picture for the department.

Care should be used in listing support sources accurately so that students (particularly research assistants) supported under U. S. Government grants are listed under the appropriate U. S. Government agency (e.g., students supported on an AEC research grant should appear under AEC and students supported under an NSF Institutional Grant should appear under NSF, not under "Institutional Support"). Institutional Support refers to support from "This" institution, as well as from State and local governments.

Students are to be classified according to citizenship, i.e., *U. S.* citizens (or nationals, e.g., native residents of a possession of the U. S. such as American Samoa), and *foreign* students. Applicants for U. S. citizenship are to be considered as "foreign" until the date their citizenship becomes effective.

Each row total given under *ALL SOURCES* is to be split into two components, *First Year* and *Beyond First*. Thus *every* full-time graduate student enrolled for an advanced degree is counted only once by a major source of support and once again in a separate breakout by level (First Year or Beyond First) of study.

Item 6–
Insert in the appropriate boxes the number of full-time students who were enrolled in this department in Fall 1971. If the exact data are not at hand, please give a reasonable estimate.

Item 7–
The numbers of graduate students who are working for advanced degrees, but who are not pursuing graduate work full time, are enumerated under the entries for *part time*. Do not include "special" students who are *not* enrolled for advanced degrees or students who have left your institution but are completing their theses while engaged in other activities.

Item 8–
Under *Postdoctorals* and/or *Research Associates*, include individuals with doctorates (including foreign degrees that are equivalent to U. S. doctorates) who devote *full time* to research activities or study in the department under temporary appointments carrying no academic rank such as instructor or above. Such appointments are usually for a *specific time period*. They may contribute to the academic program through seminars, lectures, or working with graduate students. Their postdoctoral activities have an element of additional training for them. Under (1), give the total number of Postdoctorals and/or Research Associates as defined above, as of Fall 1971. Of this number, enter under (2) the number who received their doctorates in *1967* or later. Under (3) enter the total appointments in this department as of Fall 1972, and under (4), the number of these receiving their doctorates in 1968 or later.

NSF Form 727, October 1972

NATIONAL SCIENCE FOUNDATION
SURVEY OF GRADUATE SCIENCE STUDENT SUPPORT, FALL 1972
DEPARTMENTAL DATA SHEET

(NOTE: Before filling out please read the instructions on the reverse)

1. Name and address of institution. _____
2. Science Department (or unit) covered by this data sheet _____
3. Person in Department (or unit) preparing this form Name _____
4. Highest degree program offered by Department (or unit) in Fall 1972 (CHECK ONLY ONE) Master's ___ (1) Doctorate (including MD) ___ (2)

5. Full-time graduate science students enrolled for advanced degrees (M.S. and Ph D.) receiving support of $1,200 or more in Fall 1972.

TYPE OF SUPPORT	CITIZENSHIP	U.S. GOVERNMENT SOURCE (EXCLUDING LOANS)										NON-U.S. GOVERNMENT SOU			
		AEC (a)	VET ADM. (Gd. BILL) (b)	DOD (c)	HEW NDEA (d)	HEW PHS (NIH) (NIMH) (e)	HEW Other HEW (f)	NASA (g)	NSF (h)	Other U.S. Government (i)	Total U.S. Government (a-i) (j)	Institutional Support a/ (k)	Self, Loans, and Family (l)	Other U.S. Sources b/ (m)	Foreign Sources (n)
Fellowships and Traineeships	U. S. (1)														
	Foreign (2)														
Graduate Research Assistantships	U. S. (3)														
	Foreign (4)														
Graduate Teaching Assistantships	U. S. (5)														
	Foreign (6)														
Other Types of Support	U. S. (7)														
	Foreign (8)														
All Types, Total	(9)														
Of line (9) how many are.	Men (10)														
	Women (11)														

6. Full time graduate science students enrolled for advanced degrees in this department as of Fall 1971, complete columns (j), (o), (p), (q), and (r).

7 Part time graduate science students enrolled for advanced degrees (do not include "special" students)

FALL 1971			FALL 1972		
First Year (a)	Beyond First (b)	Total (c)	First Year (D)	Beyond First (e)	Total (f)

8. Postdoctorals and/or Research Associates

FALL 1971		
Total (a)	Recent Doctorals (since 1967) (b)	

a/ Include institutions and State and local governments

b/ Include support from nonprofit institutions, industry, and all other U.S. sources

NATIONAL SCIENCE FOUNDATION
SURVEY OF GRADUATE SCIENCE STUDENT SUPPORT, FALL 1972
DEPARTMENTAL DATA SHEET

(NOTE: Before filling out please read the instructions on the reverse)

OMB No. 99-R0276
Approval expires
December 31, 1973

ered by this data sheet

eparing this form Name

Department (or unit) in Fall 1972 (CHECK ONLY ONE) Master's ___(1) Doctorate (including MD) ___(2)

Department Code (See NRC Listing)

,200 SHIP	U.S. GOVERNMENT SOURCE (EXCLUDING LOANS)										NON-U.S. GOVERNMENT SOURCE					ALL SOURCES		
	AEC (a)	VET ADM (G.I. BILL) (b)	DOD (c)	HEW NDEA (d)	HEW PHS (NIH) (NIMH) (e)	HEW Other HEW (f)	NASA (g)	NSF (h)	Other U.S. Government (i)	Total U.S. Government (a-i) (j)	Institutional Support a/ (k)	Self, Loans, and Family (l)	Other U.S. Sources b/ (m)	Foreign Sources (n)	Total Non-U.S. Government (k-n) (o)	Total (j)+(o) (p)	First Year (q)	Beyond First (r)
(1)																		
(2)																		
(3)																		
(4)																		
(5)																		
(6)																		
(7)																		
(8)																		
(9)																		
(10)																		
(11)																		

enrolled for advanced degrees in this department as of Fall 1971, and (r).

enrolled for advanced degrees (do not include "special" students)

	FALL 1972		
al	First Year (D)	Beyond First (e)	Total (f)

8. Postdoctorals and/or Research Associates

FALL 1971		FALL 1972	
Total (a)	Recent Doctorals (since 1967) (b)	Total (c)	Recent Doctorals (since 1968) (d)

cal governments.

b/ Include support from nonprofit institutions, industry; and all other U.S. sources.

Other Science Resources Publications

REPORTS	NSF No.	Price
Research and Development in Industry, 1973	75-315	In press
The 1972 Scientist and Engineer Population Redefined. Vol. 1. Demographic, Educational, and Professional Characteristics	75-313	$3.70
Characteristics of Doctoral Scientists and Engineers in the United States, 1973	75-312	In press
Detailed Statistical Tables. Characteristics of Doctoral Scientists and Engineers in the United States, 1973	75-312-A	—
Reviews of Data on Science Resources, No. 23, "R&D Expenditures of State Public Institutions, Fiscal Year 1973"	75-311	$0.35
Reviews of Data on Science Resources, No. 24, "Work Activities of Employed Doctoral Scientists and Engineers in the U.S. Labor Force, July 1973"	75-310	$.65
R&D Activities of Independent Nonprofit Institutions, 1973	75-308	$1.90
National Patterns of R&D Resources: Funds & Manpower in the United States, 1973-1975	75-307	$1.15
Research and Development in State Government Agencies, Fiscal Years 1972 and 1973	75-303	$1.80
Young and Senior Science and Engineering Faculty, 1974: Support, Research Participation, and Tenure	75-302	$1.70
Projections of Science and Engineering Doctorate Supply and Utilization, 1980 and 1985	75-301	$1.30

Federal Funds for Research, Development, Other Scientific Activities, Fiscal Years 197 1974, and 1975, Vol. XXIII .....

Detailed Statistical Tables, Federal Funds fo Research, Development, and Other Scien Activities, Fiscal Years 1973, 1974, and 197 Vol. XXIII .....

An Analysis of Federal R&D Funding by Fu Fiscal Years 1969-1975 .....

Immigrant Scientists and Engineers in the U States. A Study of Characteristics and Atti

Scientific Human Resources: Profiles and Is

Papers and Proceedings of a Colloquium o and Development and Economic Growth

HIGHLIGHTS

"National Sample of Scientists and Enginee ticipation in National Programs and Chan Educational Attainment, 1972-74" .....

"Racial Minorities in the Scientist and Engi Population" .....

"National Sample of Scientists and Enginee in Employment, 1970-72 and 1972-74" ..

"Immigration of Scientists and Engineers D Sharply in FY 1973; Physician Inflow Still Near FY 1972 Peak" .....

"NSF Forecasts Rise in Company-Funded R and Development and R&D Employment

rces Publications

	NSF No.	Price
ry, 1973	75-315	In press
lation Redefined. nd Professional	75-313	$3.70
nd Engineers	75-312	In press
tics of Doctoral ed States, 1973	75-312-A	—
s, No. 23, "R&D ions, Fiscal	75-311	$0.35
s, No. 24, "Work ntists and uly 1973"	75-310	$.65
ofit	75-308	$1.90
unds & 3-1975	75-307	$1.15
overnment	75-303	$1.80
ering Faculty, n, and	75-302	$1.70
Doctorate 5	75-301	$1.30

Federal Funds for Research, Development, and Other Scientific Activities, Fiscal Years 1973, 1974, and 1975, Vol. XXIII	74-320	$1.70
Detailed Statistical Tables, Federal Funds for Research, Development, and Other Scientific Activities, Fiscal Years 1973, 1974, and 1975, Vol. XXIII	74-320-A	—
An Analysis of Federal R&D Funding by Function, Fiscal Years 1969-1975	74-313	$2.25
Immigrant Scientists and Engineers in the United States. A Study of Characteristics and Attitudes	73-302	$2.50
Scientific Human Resources: Profiles and Issues	72-304	$0.25
Papers and Proceedings of a Colloquium on Research and Development and Economic Growth/Productivity	72-303	$0.75

HIGHLIGHTS

"National Sample of Scientists and Engineers: Participation in National Programs and Changes in Educational Attainment, 1972-74"	75-317	—
"Racial Minorities in the Scientist and Engineer Population"	75-314	—
"National Sample of Scientists and Engineers: Changes in Employment, 1970-72 and 1972-74"	75-309	—
"Immigration of Scientists and Engineers Drops Sharply in FY 1973; Physician Inflow Still Near FY 1972 Peak"	74-302	—
"NSF Forecasts Rise in Company-Funded Research and Development and R&D Employment"	73-301	—

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